ACCIDENTS AND EMERGENCIES

AND

HOW TO TREAT THEM

BY

JOSEPH B. LAWRENCE

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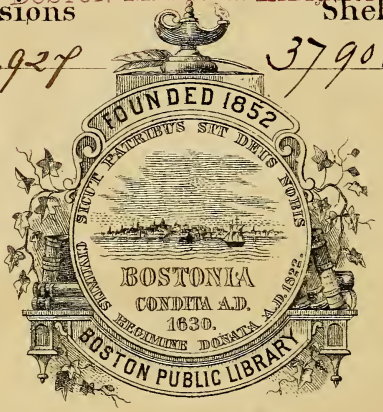

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What to Do in Cases of

ACCIDENTS AND EMERGENCIES,

Describing the Symptoms in each Case,

AND

HOW TO TREAT THEM ON THE MOMENT.

WITH

A List of the Principal Poisons,

Which, if taken, require prompt treatment.

Their Remedies and Antidotes.

Designed for

FAMILY AND GENERAL USE.

BY

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NEW YORK.

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Preface.

The object of this work on "Accidents and Emergencies" is to inform the general reader of "What to do, and how to do it," not only in the first instance, but in those cases where professional assistance cannot be readily obtained, and in language that any person of ordinary intelligence can understand and apply.

Accidents both on land and water are of common occurrence and may happen to any of us. To know what should be done at once in our efforts to assist others in accidents that might have occurred to ourselves is a part of our duty to our neighbors; though the necessary presence of mind and capacity to use that knowledge is not in the power of any work to supply.

Should this work prove the means of having alleviated pain and assisted the subsequent pro-

fessional treatment in restoring the sufferer to health, the author's hopes will have been realized and his labors repaid.

J. B. L.

265 West 43d Street, November 1st, 1888.

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ACCIDENTS AND EMERGENCIES.

The present work has been undertaken in the belief not only that it will supply a want felt by those who have had no surgical education and training, and are by circumstances placed where professional skill and assistance cannot readily be had, but also in the desire of imparting to such a general knowledge of the nature, course of treatment, and ordinary results of such accidents and emergencies that are of common occurrence and a description of which has ordinarily to be sought in technical works intended for professional readers and understood with difficulty by others.

Accidents, (*a*, from cadere, to fall,) are events that happen suddenly, and are beyond man's foresight and control.

Emergencies, (*e*, from mergere, to plunge), taken in this connection are conditions, or connection of circumstances calling for prompt action and a ready resource. Colic, Cholera,

Diarrhœa, etc., cannot, strictly speaking, be regarded in the light of accidents, but the suddenness of such attacks lends them all the gravity that attaches to "Accidents." In this sense, the terms "Accidents and Emergencies" have been coupled together as the title of this work, and in which they have been treated in the following pages. Life is beset with possible perils. Infractions of the moral, no less surely than those of the natural law, bring punishment which ignorance and selfishness invite. But there are dangers to which we are exposed through causes beyond our control. In such cases, presence of mind, and the power of taking things quietly, is of the chiefest importance. "Old women of both sexes," who give way to their feelings by hysterical screams, or even hinder those who know what to do, not only complicate matters, but are a nuisance that should at once be removed. In such cases it is doubly true that "he who ruleth his spirit is greater than he who ruleth a city."

Not every one can preserve the requisite coolness and decision of character, when suddenly called upon to do so; but there are some

who can master their own feelings and overcome the natural dread of blood and pain sufficiently to forget self in those larger and nobler feelings evoked by that "one touch of nature which makes the whole world akin."

With these few brief introductory remarks I will proceed to consider the immediate effects and treatment of such Accidents and Emergencies as are of ordinary occurrence, namely:

Accidents on the Water.

Many such occur yearly, and much loss of life and personal injury can be prevented by exercising a little common sense and self-possession. If swamped or overturned in a boat, and unable to swim, your chief endeavor must be to keep your head above water. This is easily done if you will simply throw yourself on your back, lying perfectly still, just moving the *hands* to and fro on the water, in the same level with the body. Or else fold the arms over each other, keeping them some little distance from the body, the latter being in a perpendicular position, instead of a horizontal one, as in the former case. When on board a vessel that has been run down, do not crowd round the boats and thus hamper the efforts of the sailors, nor to that side to which the vessel lists. The story of the "Birkenhead" shows what discipline and coolness will do in saving human life.

Apoplexy.

Apoplexy may be defined as the sudden deprivation of all the vital functions, save those of the heart and lungs; though feeling and will are at once suspended, and in an instant, and often without any premonitory warning, a person in apparently robust health falls down in a state of insensibility, and as if in a deep sleep, stricken down by the sudden blow. One form of the attack is, (A) where the face becomes flushed, the breathing heavy, and the pulse full and not frequent with occasional convulsions. But the attack may be preceded, (B) by a sudden pain in the head accompanied by faintness and vomiting; the skin becomes cold, and the pulse feeble, and at times convulsions follow. The patient may fall to the ground, but will revive for a while and recover from all these symptoms, though the headache will continue, and then by degrees he becomes heavy and forgetful, and his ideas wandering and disconnected, till at last he sinks into a state of stupor from which there is no recovery. This form of attack, though less alarming, at the beginning, to those present, is more dan-

gerous than the one previously mentioned. The tendency to these attacks increases with advancing years, and more generally between the ages of 45 to 60, and to persons of square stout built, with short necks and large heads, though their opposites physically are by no means exempt. Men are more liable to apoplectic attacks than women; youths and children rarely suffer from them. Apoplexy may be *cerebral*—that is, arising from congestion or rupture of the brain; or *pulmonary*, due to hemorrhage of the parenchyma of the lungs. The *first* is the commoner form. The attack may be sudden and violent, or comparatively slight at first and progressive in intensity; or it may commence with apoplexy terminating in paralysis, or commence with the latter and terminating with the former.

CAUSES. Apoplectic attacks are due to constitutional predisposition or exciting causes, among which may be mentioned sex, age, bodily conformation—all of which have already been touched upon above. Excessive mental anxiety and exertion, such as business troubles, or extreme emotions or passions; too free indulgence in either eating or drinking,

especially by persons of advanced years; severe bodily or mental strain, in fact, whatever produces a tendency to quicken the circulation of blood to the head, or retards its return from it.

TREATMENT. When the symptoms are such as described in the first form (A), immediately place the patient in a recumbent position, with the head and shoulders raised, remove everything about the neck and loosen the clothes. Admit the air freely, and apply ice—if obtainable—or cold wet clothes to the head, changing them frequently. In the second set of symptoms mentioned, (B), raise the head and shoulders, loosening the clothes, and removing whatever presses on the neck, applying ice, etc., as set forth above; but the patient's skin being cold and the pulse small and fluttering, apply strong spirits of ammonia to the nostrils and hot flannels to the legs, and hot water-bottles to the feet, or put the feet into warm water with a little mustard. Then, if the sufferer is able to swallow, administer slowly from 15 to 20 drops of aromatic spirits of ammonia in a half glass of water, or one-half dram of aromatic spirits of ammonia in one and one-half ounces of camphor mixture. Purgatives

should be given as soon as possible, 10 grains of calomel placed on the tongue, followed by a black draught; or 2 or 3 drops of croton oil rubbed on the back of the tongue, and an injection given composed of two table-spoonfuls of common salt with a little butter; or a pint of warm water; or an injection composed of soap suds and four ounces of sweet oil. If the attack be after a heavy meal, an emetic should be administered of a scruple of sulphate of zinc with a grain or two of tartar emetic. To guard against future attacks, mild tonics should be taken, the body daily washed and rubbed and the bowels kept well regulated. It is hardly necessary to add that on any occasion of an attack a physician should at once be called in.

Asiatic Cholera.

This terrible disease is of a very violent and sudden character. It attacks a person without any warning, and generally within a few hours leaves him—a corpse.

CAUSES. The actual cause is not well determined, but the effects are most disastrous in crowded towns and cities where dirt and dis-

regard of sanitation prevail. Impure water, improper food, indulgence in sensual habits, and intoxicating beverages, or whatever tends to weaken and undermine the constitution, are all so many invitations to a visitation of this dire disease. Fear, especially when the epidemic is present in the district, is also a not infrequent cause.

SYMPTOMS. The attack of the commencement is marked by derangement of the digestive organs, want of appetite, pains in the loins and knees, thirst, and looseness of the bowels; then follow sickness and purging—the discharges having the appearance of rice water, very unlike those presented in diarrhœa, or bilious purging—accompanied by severe and painful cramps in the calves of the legs, and afterwards in the bowels, stomach, and other parts of the body, which becomes bent, with the limbs twisted. The thirst is intensified, the breathing hurried and difficult, with a hardly perceptible pulse. The eyes are sunken and surrounded by a dark rim, and the skin is cold and clammy; there is a feeling of intense heat in the stomach accompanied by violent thirst. The patient is entirely prostrated, and sinks into a state of apathy,

from which, unless a change very speedily takes place, he never recovers.

TREATMENT. Although the writer has met with a case where the patient recovered when all hope had been abandoned; still when once the disease has taken hold of a person, it is very seldom indeed that he is ever again restored to health. There is no known cure, or any proper course of treatment to be followed, agreed upon by medical men whose views of how this disease should be treated, have of late years undergone somewhat of a change. The time when a cure is most likely to be effected is at the initial stage. Put the patient to bed, and apply hot bricks and fomentations to the extremities and mustard plasters to the bowels, the looseness of which should receive prompt attention. Five to ten drops of laudanum, repeated a few times every three hours, will generally put a stop to this. Dr. Watson, however, expresses as his opinion, "that the one important and guiding rule of treatment is not to attempt by opiates or by other direct repressive means to arrest a diarrhœa while there is reason to believe that the bowels contain a considerable amount of morbid and offensive

materials. The purging is the natural way of getting rid of the irritant cause. We may favor the recovery by directing the patient to drink copiously any simple diluent liquid—water (cold or tepid), toast-water, barley-water, or weak tea; and we may often accelerate the recovery by sweeping out the alimentary canal by some safe purgative and then, if necessary, soothing it by an opiate." The diet should of course be very carefully regulated, and more sparingly partaken of than in health, but not particularly changed except to abjure all food known to be indigestible and injurious. When the patient reaches the stage of purging, vomiting and cramps, the treatment must be energetic. The failing powers must be sustained by chloroform, opium and ammonia, or camphor, opium and cayenne. Brandy may also be freely administered and the warmth of the body promoted by all possible means. These remedies should be energetically pursued, especially the stimulants, and the efforts to promote warmth in the surface, until the final stage of prostration and apathy is reached.

Broken Bones.—Fractures.

Falls, and other trifling accidents occasioning the breaking of some bone or other, are among the commonest incidents of life, (particularly in the cold weather, when the bones are more brittle than at other times), often occurring when surgical aid cannot be immediately obtained. The fact that a bone is broken is easily detected by the inability to raise the limb, or from it's being bent, shortened, or twisted, as also from the pain. Much additional suffering may be spared the patient, and increased mischief prevented by the exercise of a little care and judgment.

The limbs should be tied together, or placed as near as possible in a natural position, and the patient laid on a door or hurdle, covered with straw, blankets, etc., upon which he should be laid as gently as possible and carried to the nearest house. If no hurdle, etc., be available, a convenient frame can be readily extemporized by tying firmly two short poles across two long ones, and laying upon these a few planks, covered with straw or clothing, etc.; or, a blanket securely attached to the four corners, like a

cot-bed, will adequately fulfill the end in view. In dealing with the treatment, we will commence with the head, working down to the extremities.

HEAD. All injuries sufficiently severe to break any bones in the head or face, or to produce insensibility, are especially dangerous, and need immediate skilled attendance. The head should be raised and cold water applied, particularly if there be any bleeding, and the sufferer kept as quiet and free from excitement as the circumstances will permit.

COLLAR BONE. This bone runs from the top of the breast bone to the shoulder. This fracture is perhaps one of the most ordinary accidents that can happen, as it is also one of the most readily detected. It generally occurs about the middle of the bone, and is commonly caused by falling upon the arm or shoulder. The fracture will be noticed by a lump, the broken bones rising one above the other, with considerable pain and tenderness in the injured part, and inability to raise the arm. The principal object is naturally to keep the shoulder back so as to facilitate the union of the bones. The most simple and efficacious way for non-

professional persons to effect this, is the following. Make a round pad of some soft material, about five inches long and thick, and wrap it in a small shawl. Push the shoulder backwards, pressing the fracture with the other hand, till you get the bones back into their proper place. Now place the pad well under the armpit on the injured side, bringing the ends of the shawl back and front over the opposite shoulder, then crossed and tied under the sound arm. The sore arm should be well supported in an ample sling, extending from the elbow to the wrist. A surgeon should then be seen to set the fracture right. If there be a tendency to swelling, the arm will require to be bandaged from the fingers upwards.

BROKEN RIBS are generally due to a fall or blow affecting one or more of the bones. A sharp pain is experienced, which is intensified when taking a deep breath or coughing, and by placing the hand upon the injured part a grating sensation will at the same time be felt. A possible injury to the lungs from the sharp points of the fractured rib, and the consequent inflammation, is the chief danger to be apprehended from this accident. If there should be

any spitting of blood, the patient must be kept perfectly still, and no stimulants given him. A piece of some stout material, from 8 to 10 inches wide, should be bound tightly round the chest several times to prevent the rise and fall of the ribs in breathing, commencing as near as possible to the armpits, down to the pit of the stomach.

If there be a bruise, apply hot fomentations, hot plaster, or hot bran-bags. Should there be any inflammation, the patient must be kept to his bed, resting in that position which affords him the greatest comfort, and restricted to a low diet. The pulse must be quieted by administering a dose of from 3 to 5 drops of tincture of American hellebore (veratrum viride) every one or two hours in a little sweetened water, and gradually increasing till the pulse comes down to about seventy. If the accident occur away from the house, bind some substantial substance tightly *over the clothes*, until the sufferer can be conveyed home. In all cases of a wound to the chest, the person must lie on the *wounded side.*

ARM. *Above the elbow.* A fracture of the humeral, or upper arm bone, occurs most

generally about the middle, but less commonly within an inch or so of the extremities. It can be readily detected by taking hold of the arm, just above and below the suspected fracture, and trying to bring the upper and lower portions together, when the broken ends can easily be felt, and a *grating* heard as they rub against each other. The injured limb is bent and helpless, and if the bones overlap each other *shortened.* The arm should be pulled gently and gradually to its natural length, the operator in the meanwhile setting the bone, and a bandage applied, but not to tightly, from the shoulder to the elbow. Over this bandage, four splints, well padded with lint or wadding and of the same length as the bandage, should be placed, one in front, one behind, and one on either side of the broken bone. The splints should be furnished with tapes to tie or buckle. The arm must be confined to the side, and the hand and fore-arm carried in a sling. The dressing should be removed in a week or ten days, to see that all is right and proper progress made.

ELBOW. In this instance, though the patient is able to bend, he cannot straighten his arm, which when moved backwards and forwards

makes a grating sound and gives intense pain. Falls or blows are the usual causes producing this fracture. The point of the elbow seems gone, being drawn into the back of the upper arm. Apply leeches and evaporating lotions to reduce any inflammation that may be present. When this is done, straighten the arm and bandage carefully from the fingers to the joint, and set the broken bone, continuing the bandage, passing it over and above the injured part. A well padded splint, extending from the hand to nearly the shoulder, should now be applied on the inner side and a similar one on the outside of the arm. The joint must be rested from four to five weeks, removing the splints some three or four times during that interval to ascertain that the skin is not being chafed, nor the bone disturbed.

ARM *below the elbow*. In the upper arm we have but one bone, but here there are two: one running from the elbow to the wrist at the end of the little finger, and the other on the side next the thumb. When both bones are broken the fracture can be readily detected, but not so when only one is broken, as the sound bone assists to keep the other in place, and the in-

jury is not so easy to discover. In a fracture of the outer and thicker bone (ulna), the arm seemingly retains its normal shape, though broken at the elbow or some other part of its length. In this case the elbow should be bent and the hand turned upwards, as if to lay it flat on the chest. Then apply two splints, placing one on the palm of the hand reaching to the bend of the arm, and the other, and outer one, from a little beyond the elbow to about the knuckles. The arm should be well raised towards the chest, so as to keep the outer from the inner bone (radius). When the fracture occurs in this inner bone, the same treatment must be observed, with this one exception: that to ensure the bones being kept apart, the hand must be *lowered* instead of raised. When both bones are broken, the operation is naturally a more difficult one and requires skilled attention. In bandaging fractures, due allowance must be made for swelling, which is present during the first two or three days.

HAND, WRIST, or FINGER.

Hand. Fracture of the *Hand.* An accident to these bones, which lie between the wrist and the fingers, should be treated in the follow-

ing way. Place in the palm a ball of small but firm material, or a ball of newspaper rolled tightly, closing the thumb and fingers tightly over it, and bandaging them in that position to preserve the natural arch, which the application of flat splinters will not do. The arm should be supported in a sling from four to five weeks to permit the bones to re-unite.

FINGER. Fracture of the *Finger*. After gentle extension and counter-extension to bring the broken parts together, and having attained that end, apply narrow pasteboard splints or small pieces of gutta-percha on the upper and lower sides and bandage sufficiently tight to keep the finger in an extended position. The arm should rest in a sling from four to five weeks; and if any swelling occurs, the bandage must be loosened and cooling lotions applied.

WRIST. Fracture of the *Wrist*. In a fracture of the wrist bones apply a splint front and back and tie a bandage firmly round from above the injured part to nearly the tips of the fingers. The arm should be supported in a sling till such time as it can be prudently dispensed with.

HIP JOINT. In such accidents, to which

elderly people are more particularly liable, the sufferer should be as soon as possible placed in bed, and after carefully removing his clothing, the doctor sent for.

THIGH. The fracture of the thigh bone is an accident of a very grave character, though easily discerned by the inability to raise the leg and the consequent pain in attempting to do so. The chief difficulty in this case is to obtain a proper union, for the violent spasms of the muscles, acting lengthwise, cause the fractured parts to overlap each other, occasioning much suffering. This is especially the case when the fracture is an oblique one. A long straight splint is the best to use, lightly bandaged at first and gradually tightened to accustom the limb to the pressure. If the accident occur away from home, bind the injured limb with a temporary splint, made of very thin boards or stiff straw, or with a felt hat, cut into long slips and secured by neckcloths, handkerchiefs, etc., over the fracture. On getting the sufferer home to bed, if the spasms be severe, apply a bandage around the ankle and over the instep and attach a weight of eight or nine pounds, letting the foot hang over the edge

of the bed. This will give the patient much relief.

KNEE-PAN. This fracture may be either up or down, or across, but more commonly the latter, and is generally due to a fall, or as is sometimes the case, from a violent muscular exertion in throwing out the leg. The sufferer loses all natural support from the limb. The treatment should in the first instance be directed to reduce any inflammation that may be present by applying tincture of arnica, leeches, or lotions. Then *straighten* the leg and apply a well padded splint behind to prevent any movement of the knee. The patient should be in a half-sitting posture, with the leg well raised above the level of the hip. Apply a bandage over the splint, commencing half-way up the thigh, extending as far as the fractured knee-pan; above and below the knee the bandage should be drawn tightly to prevent the broken bone from slipping under it. The broken bones should now be brought together and a bandage passed several times above and below the knee to assist the union of the bones. If the patient is obliged to move, the leg should be well supported by a firm bandage passing round the

neck and under the foot, lifting the latter well of the ground.

LEG. The leg is that part of the limb between the knee and ankle, and here again, as in the fore-arm, there are two bones, the smaller one (fibula) on the outside, and the larger one, the shinbone (tibia), on the inner and front side. A fracture of the former is not easy to find, and it is not very material to do so, as the shinbone will act as a natural splint. But if this too should be broken, it is impossible to walk upon the limb, which loses its shape and becomes bent, while the broken portions may be felt or heard grating against each other. The treatment is the same as in other fractures. That is, bring the broken portions together by extension and counter-extension. Then apply two splints, one on the outer side, from the knee to about four inches below the sole of the foot, and the other upon the inside, and over these use a bandage extending from the toes to the knee. The leg may rest on any side most agreeable to the patient. The dressing can be removed in about a week's time to ascertain if the bones have joined properly. A month, at least, must elapse before the dress-

ing can be dispensed with, and even then the leg must be used gradually and with great care.

ANKLE and FOOT. Fractures in these cases require similar treatment as those which happen to the hand and wrist. These accidents, which are serious, are often accompanied with lacerations of the flesh and ligaments. Pasteboard splints should be used, and in case of any matter forming, it should at once be released.

Bruises.

It is unnecessary to describe these results of accidents, with which we are all familiar in a greater or less degree from our childhood. They are easily caused and as easily cured when the injured person is in the enjoyment of ordinary good health. When the skin comes into contact with some substance harder than itself, the softer substance naturally receives an injury more or less severe (called a *bruise*), producing a rupture of a number of tiny blood vessels under the skin, giving it the appearance of "black and blue." The *treatment* is simple; the chief object being to prevent inflammation. Bathe the injured parts with cold water, or

equal parts of Goulard water and vinegar. Or apply a lotion of one part of tincture of arnica to eight of water.

Bleeding from the Nose.

Do not, unless it be violent, interfere with a bleeding from the nose. A bleeding from the nose is frequently an effort of Nature to relieve itself, and therefore, unless it be likely to weaken the patient, ought not to be restrained. If it be necessary to restrain the bleeding, first ascertain whether the blood escapes from both nostrils, or from the right or left. Press the nose firmly for a few minutes between the thumb and forefinger; this alone will often stop the bleeding. If it should not, inject with a syringe a quantity of ice-water or a solution of common salt, in the proportion of one table-spoonful to half a tumbler of water; or a piece of lint, twisted and moistened with the solution, may be forced up the nostril and allowed to remain until the bleeding ceases.

If these plans fail, then try what bathing the nose and the forehead with water quite cold and plunging the hand and the fore-arm into

cold water for a few minutes will do. Then take them out and raise the arm above the head. The arm is raised to distribute the force of the heart's action and to take the pressure off the carotid vessels, diminishing the strength of the current through them. This plan has frequently succeeded when others have failed. When the blood comes from laceration of the naso-palatine artery, all these measures are apt to fail and the posterior nares must then be plugged. The operation of plugging is simple, and does not require a great amount of skill. It may be performed with a gum-elastic catheter, (No. 4 or 5 will do). Through the eye of the instrument pass a string, allowing the ends to hang down. Introduce the catheter through the nostril into the mouth and draw the string, which is hanging from its end, out beyond the lips. To this attach a piece of sponge sufficiently large to fill up the opening in the posterior nares, completely filling its cavity. This method scarcely ever fails to control the most obstinate bleeding.

Bleeding from Cut or Wound.

If bleeding occur from any part where a bone lies near the surface, as the head or face, it may generally be stopped by pressing firmly against the bone with the finger or a piece of cork, or by binding on tightly a hard pad. If this does not succeed, lift up each edge of the wound and examine carefully to see if any small stream of blood is spouting out in jets. If so, an artery is wounded, and the point of small forc ps or tweezers must be dipped in where the jets come from, the spouting mouth taken hold of and drawn out, and a strong silk thread passed round it and tied below the forceps. The white and gaping mouth of the vessel may then be seen.

If the bleeding be profuse from an arm, the whole current of blood to that limb must be cut off, which may be done by some person pressing a thumb firmly into the neck behind the middle of the collar bone. This will dam up the blood in the great artery of the arm as it comes out of the chest. The handle of a door-key, wrapped in several folds of linen, may be pressed upon the place for a long time

until medical assistance can be had. Dangerous bleeding from the thigh or leg may often be stopped by pressing the great artery just below the crease of the groin. If the bleeding be below the middle of the upper arm, or middle of the thigh, pass a handkerchief once or twice around the limb, as far above the wound as possible, and tie it loosely. Slip a stiff stick under this and turn it round, like the handle of an auger, until the handkerchief becomes so tight as to stop the bleeding. The tight bandage tied round the limb may be an injury if long continued. Let there be no delay in sending for the doctor.

Burns and Scalds.

A burn is the effect of concentrated heat acting upon living tissues. The effects are inflammation and sometimes complete disorganization and destruction of the parts.

A scald is an injury produced by applying hot water or other fluid to the skin or mucous membrane. The natural temperature of the human body is ninety-eight degrees; that of boiling

water two hundred and twelve degrees. Bringing the skin in contact with a fluid heated so far above it, produces redness and pain, and when nothing is done instantly to ward off the injury, the scarf skin is raised from the true skin in the form of a blister filled with water.

The degree of danger from a burn or scald depends upon the extend of the injured surface and also upon the depth of the injury. An extensive burn or scald may prove fatal in a few hours, the patient never rallying from the first prostration. These injuries are most dangerous when upon the head, neck, chest and belly. Old persons, and those who are feeble and have shattered constitutions, will sink under burns and scalds from which robust persons will suffer but little.

In simple burns which do not involve the true skin, very little treatment is necessary.

Prepared lard, that is to say lard without salt, is an admirable remedy for burns and scalds. All that has to be done is to spread the lard either on pieces of old linen rag or on lint and then to apply them smoothly to the parts affected, keeping them in their places by means of bandages.

Another valuable remedy for burns is carron oil, which is made by mixing equal parts of linseed-oil and lime-water in a bottle, and shaking it up well before using it.

When the true skin is partially or completely destroyed, a thick layer of flour may be placed over the burned surface and covered with cotton. I have seen the best results from the employment of flour and carron oil, and prefer them over all others for loosening the flour when it is to be taken off. Poultices are useful. Whatever dressing is employed, it should not be disturbed until separated by the exudation underneath, or unless foul odors arise. In changing, every particle should be carefully removed and the parts thoroughly washed with some disinfectant liquid, such as solution of carbolic acid, 1 to 80.

Catalepsy.—Trance.

Catalepsy, or what is more generally known as trance, is a sudden spasmodic suspension of the senses of volition, in which the limbs become rigid, preserving a fixed position, no matter how uncomfortable or painful. The patient retaining exactly the same attitude as when seized, and if during the attack the position of the limbs be varied, they will remain as placed. The mind is apparently so absolutely engrossed in something outside of the person, that all control over, and union with the body seems lost, leaving it as it were dead; but after the paroxism has passed there will generally be no recollection of what has transpired during the time that consciousness was suspended. In this respect persons in a cataleptic fit resemble those in a mesmeric state, or in the condition of insensibility produced by inhaling ether or chloroform. A peculiarity of this disease is that the thread of conscious life is taken up at the very point it was interrupted by the attack. An incomplete act will be completed; an unfinished sentence concluded at the end of the fit, though it should last for several minutes or perhaps hours.

CAUSES. The causes of this disease, to which women are more liable than men, are rarely local, but such as influence the whole body; catamenia, painful mental emotions, worms, an impaired digestion, may be cited as amongst the principal Sometimes these attacks terminate in apoplexy, epilepsy, or melancholia.

TREATMENT. This must depend upon the probable cause of the disease. If the patient be of a full habit, cupping at the back of the neck, blisters, a seton or an issue, and purgatives should be given. But if in a weak, low state tonics and medicines to allay the spasms must be administered. During the attack mustard plasters should be applied to the hands and feet and pit of the stomach. Should the fit be a protracted one, cold water must be dashed over the head and face and strong ammonia applied to the nostrils. The following liniment may be beneficially used along the spine once a day: oil of hemlock, 2 drams; oil of vriganum, one dram; camphor, one dram; alcohol, 5 ounces. On recovery the patient should have nourishing diet, moderate exercise with sea bathing, or cold shower-baths. Mild tonics should also be taken to strenghten the system.

Choking.

Some children eat much to fast; they bolt their food rather than eat it; if not carefully watched fill the mouth so full and swallow lumps of food in such hot haste as to choke themselves. Instantly put your finger into the throat and feel if the substance be within reach. If it is food, force it down, and thus liberate the breathing. Should it be a hard substance, thrust the finger and thumb as far back into the throat as possible, and if there be anything there attempt to pull it out at once. Whilst you are doing this, sometimes a violent fit of coughing will take place and expel it. If you cannot reach it give a good smart blow with the flat of the hand on the back just below the neck, which will often relieve the wind-pipe when obstructed. If that does not have the desired effect, tickle the throat with the finger so as to ensure the immediate vomiting and the subsequent ejection of the offending substance. Of the treatment of things that pass down at once into the stomach, such as pieces of money, buttons, and many articles of a like kind, which children, playing with frequently put into their

mouth and sometimes swallow, little need be said, for they are seldom followed by any serious consequences. Sooner or later the foreign body passes through the alimentary canal with the food, and is thus got rid of. I may add, however, that in this case it is a very common practice to give repeated doses of aperient medicine; now unless the bowels should become confined, such a measure is rather injurious than useful.

Cholera Morbus.

This disease is very apt to make its appearance in the night, and is very common during the prevalence of warm weather. It is also known as Bilious Cholera from the great amount of bile secreted and discharged.

CAUSES. These are principally due to excessive heat, especially in malarial districts, and sudden atmospheric changes; but dampness and wet feet will also tend to produce an attack.

SYMPTOMS. The disease, which commences with sickness and distress at the stomach, is followed by violent griping with severe cramps,

especially in the bowels, attended by vomiting of a thin dirty, yellowish, whitish or greenish fluid, with discharges similar to that vomited. The nausea and distress generally continue between the intervals of purging and vomiting, at the same time the pain is intense. The pulse is rapid, soon becoming feeble and small, the tongue is dry, the urine highly colored. There is great thirst, yet at the same moment the skin is cool, but no drink can be retained on the stomach. The bilious discharges, which characterize this disease, distinguish it from diarrhœa.

TREATMENT. Put the patient to bed, and apply a large mustard plaster over the stomach and liver. Give liberal draughts of warm water, or flax-seed tea, which will clear out all the solid contents of the stomach and bowels. Then every half hour administer a tea-spoonful of compound powder of rhubarb and potassa, adding to each dose 5 to 10 drops of laudanum if necessary, until the vomiting and nausea are checked. Or else 10 drops of laudanum and 10 of spirits of camphor after each evacuation. To promote warmth of the body and of the stomach is of primary importance in this disease. Warm

injections must be given frequently and hot bricks applied to the feet, while the whole body should be enveloped in warm flannels. The following is a valuable remedy in this disease, as also in diarrhœa: Syrup of orange peel, one ounce; acetate of morphia, 2 grains; tincture of cinnamon, 6 drams; tincture of cardomum, 6 drams. Mix, and give in doses of one teaspoonful.

Clothes Catching Fire.

It is perhaps unreasonable to look for presence of mind when this frightful accident occurs. Yet it is never more needed than at such a time. If you continue on your feet, the blaze will rapidly ascend and increase the chances of the chest being burned and of the flames being inhaled. If you run to and fro to seek relief from others not present, you will create a current of air that will fan the flame into a swifter work of destruction. The instant persons perceive their clothes to be on fire and in a blaze, they should slip off a coat or shawl and seize the nearest piece of carpet, large rug, cloths, blanket, cloak, or any other article, and wrapping them tight

around you, throw yourself flat and roll over and over on the floor. If you do this with energy and effectually, you will put out the fire instantly. If it be a child or other person that is on fire, let any person present treat it in the same way. If the person is badly burnt before the fire is extinguished, as quickly as possible dash plenty of water upon it to prevent the burns from becoming deeper.

Colic.

There are several varieties, arising from different causes, of this complaint, more commonly known as *gripes*, which are marked by severe pains in the parts about the navel, with distension or flatulence, but without purging or looseness of the bowels, and accompanied in some cases with nausea and vomiting.

CAUSES. Worms, cold, superabundance of vitiated bile, over-indulgence in indigestible or unripe food, or taking copious draughts of water on an overheated stomach, are among the principal causes which produce this malady, of which there are some seven distinct kinds rec-

ognized by medical men, the commonest forms of which we will now proceed to describe.

WIND OR FLATULENT COLIC.

This is a severe and distressing pain in the bowels, with sometimes a stoppage and swelling about the pit of the stomach.

The CAUSES are due to weakness in the digestive organs, eating indigestible food or unwholesome fruit, costiveness, and cold.

SYMPTOMS. There is a sense of fullness about the lower part of the stomach, accompanied with more or less pain, the wind—which is a characteristic of *this form* of the complaint—moving from one part to another of the bowels, making a sort of rumbling noise. Pressure does not increase the pain as in the case of inflammation. The pulse is quick, and there is a slight fever attended with nausea.

TREATMENT. If the pain be caused by having eaten of anything indigestible, the stomach should at once be relieved by administering an emetic. If this does not have the desired effect, a dose of salts, salts and senna, or sweet tincture of rhubarb may be given. At all events the irritating substance must be expelled before

the pains will subside. If there is no sickness of the stomach, a little essence of peppermint in water, or ginger in hot water, or brandy and hot water may be sufficient to expel the wind and give relief. If there be costiveness and the pain continues, the bowels should be moved by stimulating *injections*.

The following is well recommended. Castor oil, one ounce ; salts of tartar, one-half ounce, and hot water, one pint. Mix well together.

BILIOUS COLIC.

This is a dangerous disease, and may be due to a morbid condition of the liver. The pain, which is chiefly about the navel, but sometimes extends over the whole body, is of a griping, tearing, twisting nature.

CAUSES. The disease may be due to long exposure to the cold, a torpid liver and skin, irritating substances taken into the stomach, vitiated bile, great unnatural heat with dampness, or malaria in the atmosphere, since it more commonly occurs in the autumn after a hot season.

SYMPTOMS. It comes and goes in paroxysms. Sometimes the abdomen is drawn in, at other

times it is distended and stretched like a drum-head. The pain can, at the first, be relieved by pressure, but after a while the belly becomes tender to the touch. There is a thirst and heat and a discharge of bilious matter from the stomach. In the worst cases the pulse is small, the face pale, the features shrunken, and the whole body is covered with cold sweat. While the head is hot, the feet are cold, and in the advanced stages of the disease the action of the bowels is sometimes reversed, the feces being forced up through the mouth.

TREATMENT. Administer immediately an active purgative injection. Mix together four grains of pulverized camphor, 12 grains of cayenne, and one scruple of white sugar. Divide into four powders, and give one every fifteen minutes. This will relieve the pain. At the same time cover the whole belly with a large mustard poultice. The sickness of the stomach may be allayed by effervescing draughts, to which from 10 to 25 drops of laudanum have been added; or by hot draughts, with a like quantity of laudanum over the stomach and feet. A strong decoction of yam-root, drank freely, is a valuable remedy for relieving the

intestinal spasms. Croton oil, given in one-drop doses done up in crumbs of bread, will often act as successfully as a purgative medicine; or castor oil and spirits of turpentine, in equal parts, in two large spoonful doses, may be taken before trying the croton oil. A warm bath and hot water bottles, or hot bricks rolled in flannel applied to the feet and sides, are good for inducing perspiration. Hot fomentations to the bowels should also not be forgotten.

Persons subject to this complaint may derive great benefit by taking after each meal one pill of the following recipe: extract of high cranberry bark, one scruple; cypridia, one scruple; aletridia, one scruple; pulv. cayenne, one scruple. Mix and make into pills. A sponge bath, rubbing the body well after it, should be taken daily, and also a reasonable amount of out-door exercise, without undue exposure to the sun.

PAINTERS' COLIC.

Painters' colic, known also as Devonshire colic, but more generally under the former designation, affects principally those engaged in the manufacture of white lead, or who employ it in their trade for mixing colors.

The name fully explains the CAUSE, which is due to slow absorption of the carbonate of lead into the system through the lungs, stomach and skin.

The SYMPTOMS of lead poisoning are, *as a rule*, gradual. The appetite becomes impaired, and there are transient pains in the umbilical parts, accompanied by languor, nausea, belching, obstinate costiveness, and vomiting of acrid bile. The attack which is paroxysmal in its nature, may be severe, or so mild as not to merit any notice, but by degrees the pains increase in severity and have a twisting character. The edges of the gums have a bluish tinge, and the belly becomes hard and contracted and tender to the touch. The pain, which may lessen at times, but never wholly leaves the patient as in other forms of colic, will in severe cases mount up to the chest, and down the arms, even affecting the bladder, making the passage of the urine painful. The face becomes pale and contracted, and a cold sweat suffuses the body.

TREATMENT. To relieve the pain and open the bowels, much the same course should be adopted as in Bilious Colic. Give at once a

hot bath and a dose of from 20 to 30 drops of laudanum; afterwards one-fourth of the following mixture should be taken every four hours. Sulphate of magnesia, one ounce; powdered alum, two drams; tincture of opium, half a dram; water, six ounces. Alum is considered to have special curative powers where this disease has become chronic.

The following recipe is recommended to those exposed to the dangers of lead poisoning. Elixir vitriol, one-half ounce; tincture of prickly ash berries, one ounce; mix, and take a teaspoonful in a gill of water three or four times a day.

Paralysis or palsy sometimes arises from this disease, but is in general confined to the wrists. Galvanism, with friction and shampooing should be applied, with chalybeate waters.

COLIC IN CHILDREN.

Young children are very liable to attacks of colic, owing to acidity in the stomach arising from injudicious over-feeding, or from giving them solid food at too early an age. They often suffer severely from the pains, throwing

their little legs wildly about and screaming loudly.

TREATMENT. When the attack is due to costiveness, administer an injection of one table-spoonful of castor oil and one ounce of warm infusion of peppermint ; or if the bowels require to be acted upon, give sweet tincture of rhubarb with a little soda in it. Paregoric on a small piece of sugar will generally give relief, but it is better not to use it, when simpler medicines for expelling the wind from the stomach and bowels and allaying the pains will answer the end in view.

Relief may also be frequently afforded the child by simply covering it with hot flannels and laying it on its belly across the knees, at the same time rocking it and gently tapping the back ; but this must be done with great care, as otherwise it may tend to increase the infant's sufferings.

Cramps.

This is a sudden contraction of the muscles of the legs, thighs, stomach, and other parts of the body; the affected part being, as it were, "drawn into knots." Drinking cold liquids when much heated and in a state of perspiration, or vice versa, weakness, excess in eating or drinking, and particularly overworking the muscles, are among the principal causes which induce an attack, which, when it affects the stomach, is a serious matter. Swimmers are very liable to cramps, which so often prove fatal to them. When the suffering is due to overstraining the muscles, the exercise mast be moderated.

Rub the muscles well. This will help to bring it back to its natural condition, and if the affected muscle be in the leg, tie a bandage tightly above it, rubbing that part well with spirits of camphor, or laudanum.

When the attack occurs in the stomach, hot fomentations should be applied. Burnt brandy is also an excellent remedy, where the contracted muscles are situated internally. The bowels should be kept well regulated.

Diarrhœa.—Looseness of the Bowels.

Frequent, copious, and thin or extremely liquid discharges point to a loose or relaxed condition of the bowels. Children are very liable, especially during the hot season, to this complaint, which often proves fatal to them.

The excessive discharges are due to a variety of CAUSES; as bad and unwholesome food, or food taken in large quantities, unripe fruit and other substances, which, remaining undigested in the stomach, act as irritants, until expelled; sudden changes of temperature; exposure to long continued heat, or malarial influences; the application of cold to the body producing congestion of the bowels; suppressed perspiration, and inflammation or ulceration of some portion of the bowels. With children the cause is very commonly due to eating unripe or unsound fruit, when naturally attention will be given to any attack, but not necessarily to its immediate suppression, as it may be only an effort of Nature to throw off from the system what is injurious to it; but the complaint must not be permitted to continue unchecked, as otherwise it may become serious.

SYMPTOMS. The attack may come on suddenly when due to cold or some undigested substance in the stomach; or there may be premonitory symptoms, as restlessness, disturbed sleep, and passing abdominal pains, and other signs indicative of indigestion, which may continue for some time. There is a feeling of distension and weight in the lower part of the stomach, attended by a rumbling noise in the bowels caused by the presence of wind. This feeling is relieved when an evacuation takes place, but returns when another is near at hand. Griping is frequently present, and the face is pale and dry and after a while becomes sallow. In addition to these symptoms the sufferer is troubled with nausea and vomiting, and if the purging be not speedily arrested, great exhaustion, accompanied by spasms and cramp, will follow.

Diarrhœa is distinguished from dysentery by the absence of blood in the discharges as also of fever, inflammation, contagion and straining at stool. As the disease progresses, the motions become very watery, the strength rapidly diminishes, great emaciation takes place, and dropsy generally ensues.

TREATMENT. In the treatment of this disease the remedy will of necessity depend upon the originating cause, but whatever that may be, the simple rule is to make the patient keep quiet and not to exert or expose himself to sudden variations of the temperature, or (in hot weather) to the direct rays of the sun. To rest quietly on the back is of the greatest importance in this as in all cases of bowel complaint. Generally speaking, if the discharges from the bowels have an offensive odor, or if they have not acted for some time, then they must be cleared out with a dose of castor oil or other aperient, before doing anything else. In the case of a child, instead of castor oil give spiced syrup of rhubarb, and a tea-spoonful will suffice for an infant. In every instance, however, put the child to bed, bandaging it tightly round the stomach with flannel, and leaving it without food for a few hours. Where the motions are thin and frequent and attended by some degree of bearing down, administer 5 drams of castor oil with 5 drops of tincture of opium. This will give great relief. The same course should be adopted when the attack is due to the introduction of oily or putrid food into the stomach.

If cold or suppressed perspiration be the cause, then the secretions must be restored by administering to the patient medicines which determine to the skin, such as James' or Dover's powders, five grains of the former, or ten of the latter, in a little arrow-root or gruel. The feet should be put in hot water every night. When there has been an abuse of aperients, these must be discontinued. If there are pains in the bowels with nausea and vomiting, apply a mustard poultice, or else heat a plate in the oven and wrap it well round with flannel wrung out of hot water, then place over the belly, covering with a dry towel. This will afford all the requisite heat without the weight of a large plaster. It is advisable to have another plate heating whilst one is in use, so that a change can be immediately effected. A few drops of laudanum and spirits of camphor, 5 drops of each for a child of 10 years, and 3 drops of each for one of 5 years, may be given every twenty minutes so long as the diarrhœa or pain and vomiting continues. Neither laudanum or paregoric should be administered to an infant, except under medical advice.

Dislocations.

The tendons and ligaments at the joint, which keep the bones together and give the limb its freedom of action, may, through external violence or undue tension, be displaced, severing the natural connection. In these cases of accident, it is hazardous for an inexperienced person to try and remedy the mischief, as, unless perfectly sure that the limb is out of joint, the attempt to effect a reduction, may tend to bring about a fracture instead. It is better to procure skillful advice in every instance when such can be readily obtained. But *immediate* action must be taken, when by a heavy fall or otherwise the neck is partially dislocated, for there is a bare possibility of recovery by prompt action, but the accident usually terminates fatally. Carry out the following directions.

NECK Place the person at once on his back, planting the knees against each shoulder. Hold the head firmly in the hands, and gradually and gently turn it into its natural position. Absolute rest for some days afterwards is necessary.

It must be borne in mind that, in giving the

following directions for the treatment of dislocations in other limbs of the body, the advice above given, to keep the patient quiet and obtain professional assistance, must not be forgotten by those without any proper and technical knowledge.

FINGERS and TOES. Dislocations of these are not of frequent occurrence, and usually happen between the first and second joints The projection caused by the dislocated bones is easily perceived and without much difficulty reduced if effected speedily after the accident. Immerse the limb in hot water and let the patient lie on the floor; then by bending replace the displaced bone over the head of the bone from which it has been disjoined. A good deal of extension and counter-extension may be required in the more obstinate cases, for which purpose a piece of stout tape should be wound round the finger, protecting the skin with some wetted material. The wrist during the operation should be inclined forward.

JAW. Here the jaw gets out of joint from opening the mouth too wide, as in gaping, which becomes forced wide open, with much pain in front of the ear, extending up to the

temples. Put the person on a low seat and place a thin stick across the mouth, pushing it far back; then press backwards and downwards till the jaw slips back into its place; or else, covering the thumbs with a handkerchief, place them in the mouth, pressing slowly but firmly on the four back teeth, at the same time raising the chin and pushing the jaw backwards.

SHOULDER. In a dislocation of this limb, the arm becomes powerless and the shoulder appears flat when compared with the sound one, and all attempts to move the elbow in the direction of the injured limb will occasion pain. A depression will be seen at the top, and by passing the fingers under the armpits the head of the bone will be felt. In this case, where the depression is *downwards*, put the patient on a bed, or the floor, with his head raised, and place your foot in the armpit, against the head of the bone. Then taking a firm hold of the arm above the elbow or at the wrist with your hands, or with a strong bandage attached to it and passed round your neck, pull steadily and push with the heel.

After doing this for some time, tell the person to turn quietly round, when by a sudden

strong pull you will feel the bone jerking into its right place.

HIP. A dislocation of the hip causes a shortening of the leg, making the foot incline inwards. When unless assured that there is a dislocation, do nothing without proper advice. In cases of extreme urgency, act in a similar manner as when the shoulder is put out; placing the foot between the legs, at the same time making due provision for protecting the parts.

WRIST, KNEE and ANKLE. All accidents occurring to these are of a serious character, requiring surgical attendance. But when such professional assistance cannot be readily obtained, the same principle should be adopted as pertains in all cases of dislocation, that is, by extension and counter-extension to get the muscles into that relaxed condition as will permit the operator to push the bone back into its proper place.

WRIST. In the case of the wrist, the accident is generally caused by a fall on the hands. The bones of the fore-arm may be thrown either backwards or forwards on the wrist, causing the projection to be either in front or behind. The bones are replaced by pulling the fore-arm and

hand in opposite directions, pressing sideways, if the displacement is at the side. Put a straight, well padded splint on the back and front of the fore-arm and wrist and tie a bandage over the whole. The arm should be carried in a sling, and any inflammation kept down by applying cold water or cooling lotions.

KNEE-PAN. This bone may be forced off the end of the thigh-bone outwards, causing a projection on the outside, with inability to walk or use the limb without great pain, or the bone may be thrown inwards, (which is rare), causing a projection on the inside, and a like inability to bend the knee. The leg should be bent forwards *on* the body and the knee kept as straight as possible. Then with the hands press down on that edge of the knee-pan which is furthest from the centre of the joint; this will raise the nearer edge of the bone, when the muscles, assisted by a lateral pressure, will help to place the disjointed member into its right position. The knee should be kept slightly bent and a splint worn at the back of the limb. Apply cold water or cooling lotions.

ANKLE. The dislocation here may be either backwards, forwards, inwards, or outwards. The

latter is the most frequent and is generally accompanied by fracture of the small bone of the leg, above the ankle joint.

These dislocations can all be readily ascertained by comparison with the sound foot. Where the dislocation is outward, hold the foot very firmly by the heels and front and draw steadily downwards and then force it into position by moving the foot or ankle backwards and forwards for a little while. The return will be greatly facilitated. The foot should be confined in pasteboard splints, soaked in warm water and moulded to the shape of the limb, with a foot piece at right angles. The patient must be kept to his bed for five or six weeks, and when commencing to walk again, the ankle should be supported with a roller bandage.

Drowning.

The length of time that persons can remain under water and afterwards recover, is from five to thirty minutes. The air being shut off from the lungs, breathing stops and the immediate accumulation of carbonic acid in the blood paralyzes the nervous system and insensibility

immediately follows. The heart continues to beat, however, from five to twenty minutes after the occurrence of insensibilty and apparent death. Recovery may take place at any time before the heart ceases to beat, and has been brought about in some cases even after this organ has become still. It has taken place in some few instances as late as half an hour after being under water, but it can scarcely be expected, even under the best treatment, later than twenty minutes from the time of submersion, and even as late as this the chances are much against restoration. Treat the patient instantly on the spot in the open air.

1st. Loosen the clothing, place the face downward with the forehead resting on one of the wrists and the face turned to one side. Open the mouth, seize the tongue between the fingers covered with a handkerchief or a piece of cloth and draw it forward between the teeth. Clear the mouth and throat from mucous by passing the index-finger, covered with a handkerchief or a piece of cloth, far back into the mouth, thus opening a free passage into the windpipe.

2nd. Turn the body face upward, shoulders

resting on a folded coat or pillow, keep the tongue drawn forward, take hold of the arms just above the elbows, draw them away from the sides and up over the head until the hands meet, counting one, two, (this expands the chest and allows the air to enter the lungs), lower them so that the elbows will come to the sides and the hands cross on the pit of the stomach and press then gently but strongly against the sides and chest, counting three, four, (this forces the air out of the lungs); continue these two movements (which produce artificial breathing) very deliberately about ten or twelve times, in a minute and without ceasing until the patient breathes naturally, or until satisfied that life is extinct.

3d. While this is being done, a little friction may be produced on the chest by rubbing gently with warm flannel, and the body may be stripped and wrapped in dry blankets. After natural breathing begins, continue very gently for a few minutes the two movements which produced artificial breathing.

After natural breathing is fully restored, give the patient a tea-spoonful of brandy, hot gin, or tea, two or three times a minute until the

beating of the pulse can be felt at the wrist. Rub the arms and legs upward and the feet and hands with warm and dry flannel. Apply hot cloths to the body, legs and arms, and bottles of hot water to the feet.

Effects of Cold.—Frost Bites.

A temperature ranging from 60 to 70 degrees, though considerably lower than that of the human body, which averages 98 degrees, is the one best adapted to man's requirements, since the proportion to the loss and reproduction of heat are nearly equalized. A lowering of the temperature tends to congeal the blood, and the effect of the impeded circulation is quickly apparent in the smaller vessels of the skin, which are the first to be affected, as this lowering increases the more important organs, as the heart and arteries suffer, owing to the free course of the blood being checked in the surface vessels, and not undergoing that natural change in the lungs, as would otherwise naturally take place.

The fingers, ears, nose, and other projecting

parts of the body are the first to suffer from an undue exposure to the extreme cold, assuming a blue or livid appearance caused by the weakened circulation, which, if continued and not speedily arrested and restored, will lead to mortification and death.

This lowering of the bodily temperature produces a general or local loss of vitality and a strong desire to sleep, which must be prevented by every possible means, otherwise a state of insensibility will arise, brought about by congestion of the brain.

(Where the vitality is only locally or partially destroyed, a condition occurs known as *Frost Bites*, which are treated of at the end of this article.)

TREATMENT. The main object here is to restore the natural temperature of the body, or affected part, and this must be done *gradually*; as Dr. Hunter says: "The degree of external heat should be in proportion to the vitality." When the life is weakened and nearly destroyed by frost, the warmth imparted should be small, and rise no faster than life returns.

In no case should a person overcome by cold be *suddenly* exposed to any considerable degree

of heat or taken into a well warmed room. This would only result in either seriously endangering the patient's life, or in the case of frost bites killing the affected member or causing violent inflammation.

The body, after removing the clothes, should be covered with snow, excepting the nose and mouth, but when this is not obtainable, immerse the body in water as cold as possible for some minutes. When the body has thus gradually thawed and the muscles begin to relax, place it, after drying, in a cold bed and rub well with warm hands under the clothes. The continuous friction will cause the temperature to rise. As soon as signs of vitality appear and the flesh regains its normal appearance, apply lard or sweet oil to the skin. The patient should be well protected with heavy wraps. A small dose of brandy may now be administered.

FROST BITES. When the cold affects some projecting part, as the ears, nose, fingers, and toes, rub the part with snow or cold water until the circulation is partially restored, and then with equal parts of brandy or some other spirits until the restoration is complete. Troublesome sores are often the result of frost bites and are

difficult to heal Red precipitate ointment is the best remedy for them, and where there is much imflammation, apply poultice.

Epilepsy.—Epileptic Fits.

Epilepsy, or falling fits, as it is sometimes called, is a disease of the brain characterized by paroxysms and convulsions occurring at irregular periods, accompanied with loss of consciousness and voluntary motion.

CAUSES. There are many causes which give rise to these attacks, such as *external* injuries to the brain and spinal cord, fracture of the skull, etc.; or to *internal* injuries and diseases; worms, concretions, tumor, water on the brain, sudden frights, strong mental emotions, painful domestic troubles, especially in women of nervous temperament when pregnant, sexual excesses, self-abuse, etc. The disease may be inherited or due to predisposition occasioned by the plethoric or debilitated condition of the sufferer; when due to this latter cause, and happening after the age of puberty, it is generally difficult to cure, but if the attack occur

in early life and is occasioned by worms or other accidental cause, a cure may ordinarily be anticipated. The seizures may take place at any period of life, but are more frequent between the ages of ten and twenty years; occurring during childhood, there is a possibility that the sufferer may outgrow the disease, but the probability is that it will become constitutional and incurable.

SYMPTOMS. The attacks may be only a momentary and passing loss of consciousness, or one of a more expressed and serious nature. In the former case the symptoms are merely a sudden and brief loss of consciousness and a fixed, steady look in the eyes, loss of self-possession and an inclination to fall; but there is no swelling of the face, no distortion of the features, no foaming at the mouth, no biting of the tongue, no convulsions, and no warning cry, characteristics of the more serious class of these seizures. These latter are also sudden, and in general without warning. The patient may apparently be in the enjoyment of good health, when all at once he utters a loud and piercing shriek and falls down senseless and convulsed. The face becomes greatly distorted with the

head inclined to one side. The eyes are set, or rolling wildly, the breathing is heavy and the skin turgid and livid; there is a blood-tinged froth around the mouth, due to biting of the tongue; the arms and lower limbs work violently; there is a choking sensation in the windpipe, and the sufferer is seemingly at death's door.

After a longer or shorter interval, these symptoms gradually diminish and at length cease, and the sufferer becoming partially conscious for a time, drops off into a heavy sleep, which last for several hours and from which he awakes without any knowledge of what has occurred during the paroxysm. When the fit has passed off there is generally a headache and a feeling of languor remaining as reminiscences of the attack.

Usually, as already stated, the patient immediately before the attack utters a loud cry, but in some instances a peculiar sensation is experienced as of a current of air or stream of water commencing either in the extremities, or pit of the stomach, and working upwards to the brain. This is the *epileptic aura*, a warning of a true attack of epilepsy.

TREATMENT. During the attack but little can be done beyond keeping the patient from injuring himself by the violence of the convulsions. Place him in the middle of a bed, to prevent his rolling off, but if unable to lift him, leave him in a recumbent position with the head slightly raised, and insert a piece of leather or a tightly rolled handkerchief in the mouth to prevent the tongue being bitten. Loosen the clothing round the chest and neck and apply cold wet towels to the head and temples and hot water bottles to the feet if cold, allowing free circulation of the air. The treatment during the intervals must necessarily depend upon the exiting cause, as worms, injuries to the head, teething, etc., when attention will naturally be directed to its removal.

In all cases, however, the diet should be carefully regulated. Where the attack is due to a plethoric condition, the sufferer must be restricted to a light, nutritious, but not stimulating diet, avoiding everything that may produce a rush of blood to the head. The bowels must be kept regular, by the diet if possible, the sleep taken at regular hours, with daily exercise in the open air. When, on the other hand, the

cause is due to general weakness and debility, a generous diet should be adopted, with tonics and other means for strengthening the system. Bromide of potassium, given in doses of ten to twenty grains in half a glassful of water, three times a day, has been found a very valuable remedy. The writer has experienced the efficacy of the following prescription:

℞

Soda of bromide,	ʒi.
Ammonia of bromide,	ʒss.
Aqua,	ʒvii.

A tea-spoonful in two table-spoonfuls of water three times a day. It has been said that a black silk handkerchief thrown over the face will at once bring a person out of a fit, and when an *aura* has preceded an attack, its progress may be checked by means of a ligature, or by applying to the nostrils five minims nitrite amyl pearl. By the judicious employment of the proper remedies and a strict adherence to the prescribed regimen, a permanent cure of these attacks may often be effected, or, at all events, the sufferings greatly alleviated in those cases which do not admit of cure.

Fainting.—(Fits.)

Fainting is a condition of total or partial unconsciousness, produced by the feeble action of the heart and lungs, causing an interruption of the requisite supply of blood to the brain. The principal characteristics are: a low, weak pulse, slight respiration, and the marked absence of convulsions. The attack may be sudden, or marked by

PREMONITORY SYMPTOMS, such as singing in the ears, dizziness, a clammy sweat, and a death-like pallor of the face. The limbs are unable to support the body, which falls helpless and apparently lifeless to the ground. This is an absolute faint. The attacks are in general only partial and limited in duration.

CAUSES. These are various and even peculiar; a particular scent, the presentation of certain objects, sudden emotions of joy, fear, or surprise, loss of blood, or whatever causes debility of the nervous system, all are predispositions to attacks of this nature.

TREATMENT. When a person faints let him remain or place him in a horizontal position, with the head low; dash cold water on the face and

neck, loosening whatever presses on the body and neck; allow the air to play freely round him, and apply smelling salts or camphor to the nostrils, not too frequently, and mustard to the feet, or rub the latter frequently. As soon as the patient revives and is able to swallow, give a small glass of equal parts of spirits and water.

The cause will naturally govern the after-treatment, which should strictly be those of hygiene and general health.

Fish Hooks, Crochet Needles, Thorns, Splinters, Etc., in the Flesh.

When a *fish hook* has entered the flesh, do not wriggle it about till you have made an opening, nor try to work it out backwards. The best plan is, first, to cut the line from the hook, and then turning the point upwards, push it through in the direction in which it entered, until it pierces the skin; clip or file off the flat end of the hook, and taking the remaining portion by the point, pull it through. If the accident be caused by a *crochet needle*, which has

entered deeply into the flesh, do not attempt to pull it out, as this will only inflame and tear the part, but get a surgeon to remove it; but if the services of one cannot be readily procured, first ascertain on which side the hook is, and then push a smooth ivory knitting needle *down* the wound till it reaches the hook and draw them both out together. Accidents from *thorns, splinters and other pointed substances* very commonly happen to the hands, feet, and legs. If such can be *entirely* extracted, no evil consequences will arise, but if the body has been penetrated or any part left in the flesh, inflammation is set up, sometimes followed by an abscess, which should be opened as soon as it has formed. Where the thorn, etc., cannot be taken hold of to remove it, a bread and water poultice should be applied till the offending substance is drawn out.

Fits.—Convulsions.

These sudden and violent attacks are common to both children and adults. In the former they are occasioned by a variety of causes, such as teething, the striking in of a rash, or when suffering from worms, flatulency, water on the brain, or the presence of some foreign or irritating substance in the intestines. They are frequently produced by slight functional disorders, and the younger and more excitable the child, the more liable it is to these attacks, which may be immediately fatal or occur daily or even several times a day and linger on for some time. But though fits are due to several and different causes, they invariably are indisputable evidence that the brain has in some way been disturbed.

In adults, fits are apoplectic, epileptic, puerperal, or other seizure, as the case may be. They are due to narcotic poisons, such as opium, prussic acid, ardent spirits, and indigestible matter. Fits are not in themselves a disease, but only symptoms of a disease, and the treatment must consequently be determined by the cause creating it. In nearly every instance these attacks are so sudden that the

necessity for immediate action is imperative, before professional advice can be procured.

TREATMENT. *Infants.* Teething usually occurs between the ages of 5 and 7 months, when the gums should be carefully watched, and as soon as they show signs of swelling from the pressure of the teeth, lance them entirely down to the rising teeth, so that there shall be no impediment to their free growth. This may often avert any fatal disease of the brain and afford almost immediate relief to the child. If a fit has come on before a doctor can attend, put the feet in hot mustard and water till quite red and apply cold water to the head. Administer two or three tea-spoonfuls of syrup of ipecacuanha, or a little mustard and warm water, sufficient to produce vomiting.

Worms. For this complaint a worm powder or some other vermifuge should be given. For a child of four years the following is recommended. Pink-root, one-half an ounce; one-quarter ounce of senna and of fennel; pour a pint of boiling water on them, and give a table-spoonful three times a day.

Improper food and indigestion. If the

stomach be at fault, give a mild emetic followed by a purgative dose.

Acrid matter. Give an injection to loosen the bowels a little more than natural.

Flatulency. Administer medicine to expel the wind from the stomach and bowels. The following is a simple and effective carminative. Bruised cloves, two drams; boiling water, one pint; soften by steeping in a closed vessel for two hours, and then give one wine-glassful occasionally.

Effusion on the brain. Apply cold lotions to the head and keep the bowels well open by purgatives.

Disappearance of eruptions. In this case place the child in a hot bath.

The above are the chief ailments inducing fits in young children, but whatever the cause, it is essential that the sufferer should be kept quiet, and the diet judiciously given.

TREATMENT. *Adults.* For adults, fits may be apoplectic, epileptic, cataleptic, hysterical, or seizure, as the case may happen. When a person is taken with a fit, loosen all portions of the clothing that presses on the body and neck, apply cold water to the head and volatile

stimulants to the nostrils. The proper treatment, however, at the first, in each of these several varieties are fully set forth under their respective names.

Foreign Bodies n the Gullet.

When such foreign bodies, as coins, buttons, or marbles, are swallowed, they generally reach the stomach without much difficulty and are evacuated in the ordinary course of nature in a day or so. If the obstacle has not gone far down the gullet and can be reached with the finger and thumb, try and pull it out, or use a pair of curved forceps, which will reach a little lower. Or failing this, place one hand on the chest of the choking person and give a smart slap or two on the back between the shoulders with the other hand. Where the substance has gone some distance down the gullet, it may be pushed down into the stomach with some blunt instrument. If the stomach contain food when the accident occurs, an emetic of 5 to 20 grains of powdered alum or ipecac with water may be administered, but where there is no food in the stomach, it is advisable to distend the intestines

by giving hearty meals of batter pudding, porridge, or something similar previous to the emetic being administered.

Farinaceous food should especially be given, when the article swallowed is some sharp substance, as *pins*, *needles*, or *pieces of broken glass*. The object being to allow these to pass well enveloped with the other contents of the stomach. No aperients should be given, as their action on the bowels may force the pointed substance into the mucous membrane of the bowels and bring an ulceration, or even cause death.

Foreign Bodies in the Windpipe.

These will, in some cases, remain a considerable time in the windpipe, but beyond producing a slight inflammation and an irritating cough, no immediate danger need be apprehended. If the obstacle has passed below the epiglottis (that is the valve, which, when a person is in the act of swallowing, closes down on top of the windpipe, and prevents the food from entering the breath-passage), but little can be done beyond giving the person a little snuff or ordi-

nary pepper to induce sneezing, and get him to expel the air from the lungs by coughing suddenly and energetically a few times. This may have the effect of driving out the substance.

Foreign Bodies in the Ear.

Foreign bodies, flies and other insects, frequently find a lodgment in the ear. Only last summer, while I was stopping in the country, in the early part of the evening a number of persons were sitting on the piazza. A flying insect lodged in one of the ladies' ear. Instead of the bug coming out, it was going further into the ear. Between the irritation and the buzzing noise of the bug, the lady was greatly annoyed. She was running in and out of the house, apparently going crazy. Every one in the house was in a great excitement, but fortunately it happened that I was in the house. I poured a few drops of sweet oil into the ear (thus killing the bug instantly, as oil will kill any insect), and then I syringed the ear with a little soap and lukewarm water. The bug floated to the top and was removed with

the water. If a living insect gets into the ear, stuff up the ear with a piece of cotton wool, thoroughly saturated with a strong solution of common salt or vinegar, sufficiently large to plug it completely, thus preventing the admission of air. After its introduction, turn the patient on the affected side, and allow the hand to press firmly on the ear. In a few minutes the noise will cease, and if the plug at this time be withdrawn, the insect will probably be found partially imbedded in its substance. If not, take hold of the tip of the ear at the top and pull the ear up a little. This straightens the tube. Then pour sweet oil freely into it and hold it there for a while. Then wash out the ear with warm water and soap, and the insect will rise to the surface. If the insect is dead and remain in the ear, his presence need give no special anxiety, as it will come out itself a day or two afterward.

If any hard substance, like a bead, shell, button or pebble be pushed into the ear, a stream of warm water may be syringed with advantage, as, if the water pass in any way between the hard substance and the ear drum, it will not unfrequently force it out. That side

of the head should be held towards the floor, so that the object may more easily fall out. But should it be something that will swell with moisture, like a bean, pea, corn, or seeds, no syringing should be resorted to, as it will excite the object to swell and increase the mischief, and dry heat must be employed. The patient should lie upon a sofa or bed with the affected ear turned downwards. Then give with the flat of your hand two or three sharp sudden blows on the ear, shaking the head at the same time, and most likely the offending substance will drop out. If you do not succeed, lie quietly down upon the affected side and send for a physician.

Foreign Substances in the Nose.

This vicious habit young children sometimes fall into of putting small objects into the nose, is not more remarkable than the variety of things which they put into the mouth, with this difference though, that their removal from the mouth is quite an easy matter, while from the nose it is oftentimes quite difficult, owing

to the fact that the entrance is the smallest part.

Moreover, a timid child oftentimes refrains from telling what has happened, and an object which might easily have been extracted at the outset, becomes firmly fixed by the swelling of the mucous membrane, excited by its presence, and becomes difficult to extract afterward, especially if it be a pea, or bean, or seed ; indeed, anything of a kind that can imbibe the moisture of the part and so become swollen. The sooner it is removed, the better.

When any foreign substance gets lodged in the nose, by careful examination determine which nostril the obstruction is in, close the mouth and the opposite nostril and then blow forcibly through the obstructed side. Snuff may be introduced into the opposite nostril in order to induce sneezing. If this be done soon after the accident two or three efforts usually shoot the unwelcome lodger out. If this is not successful, press the thumb against the nose above the obstructing body, so as to prevent it getting further in, and then make a hook of a piece of wire or a bent pin, and pressing it up over the offending substance, pull it down.

Hydrophobia (Rabies).

The general dread of hydrophobia creates a more universal fear of a bite from a dog than almost any other accident. It is due to a poison introduced into the system from the bite of a person or animal suffering from the disease, though usually with the dog. Bites from dogs, even when in play, should be treated as poisonous wounds, as the excitement may cause a change in the saliva with which the mouth is plentifully supplied.

The interval between the bite and the appearance of the disease varies from one to six weeks. Death usually occurring from one to eight days after.

SYMPTOMS. The chief symptoms of this well known canine madness are: spasmodic contractions of the larynx, preventing the sufferer, though thirsty, from swallowing any kind of liquid. The moment water approaches his mouth, a spasmodic shudder seizes him and he pushes it away with horror. He suffers from pain and stiffness in the neck and the throat, which becomes contracted, and is filled with a sticky mucus which he is constantly endeavoring to spit out or extract with his fingers.

Thus, between the convulsions and the comparative quiet which follow them and during which there is great depression of spirits, the unhappy sufferer dies either in a spasm or from sheer exhaustion.

TREATMENT. As no positive cure has been discovered for this terrible disease, all efforts must be preventive. When a person is bitten by a dog or other animal supposed to be mad, the wound should at once be thoroughly washed with a solution of carbolic acid, one to fifty. Then apply dry cupping, or suction. Take a stick of nitrate of silver (lunar caustic) and rub it well into the wound. This, if properly done directly after the bite, will prove the most effectual method of preventing hydrophobia.

The nitrate of silver acts not only as a caustic to the parts, but appears to efficaciously neutralize the poison.

The wound should once more be washed by holding it under a stream of tepid water for a considerable time. If there be any doubt about the poison being all removed, a strong solution of lunar caustic should be applied. Then treat as any other wound.

Lockjaw.

This is a contraction of a spasmodic and generally fatal nature. The rigidity may be local, affecting only the muscles of the jaw, but sometimes general, when not only these muscles, but those of the whole frame are affected and the spasms are of so violent a character as to produce fractures of the teeth or bones.

Exposure to the cold and bodily injuries, such as are experienced by the wounded on a battle-field, but particularly injury to a nerve, are the principal causes of this nervous disease. Inhaling chloroform or ether or taking them in sufficient quantities to allay the spasms, are the best known remedies. The ordinary methods of treatment are to give the patient a hot bath, or to wrap him in flannels or a blanket wrung out of hot water. Shower baths and stimulant liniments, such as turpentine and opodeldoc, applied down the spine, have been found efficacious.

Paralysis—Palsy.

Paralysis is the total or partial loss of power and sensation, or both, in one or more parts of the body, in some cases commencing gradually, for a long period may elapse before the loss of nervous energy is absolute, but more frequently coming suddenly and extending from one portion to the whole frame.

It is a warning of other diseases, and often a precursor of apoplexy, to which it is akin in symptoms and in which it not unfrequently terminates. There are three several *forms* of paralysis or palsy; as where only one side of the body is attacked (hemephligia); or when the stroke is confined to the lower extremities and the parts about the pelvis (paraphlegia), and again it may be local, affecting only a single limb or muscle. There are also *varieties* of paralysis or palsy, such as facial, infantile, diphtheritic, and shaking.

CAUSES. The general paralysis is caused by the rupture of a vessel of the brain, which may take place, even in sleep, and without any previously marked apoplectic symptoms. Intemperance in either eating or drinking, mechanical

injuries to the head or spinal cord, the pressure of blood or water on the brain, the striking-in of eruptions, all are inducing causes, but in every instance the brain is the source of the malady, and the disorder, if confined to one side and does not include both, will, in all probability, extend to the other.

SYMPTOMS. There *may* be no premonitory indications, except a slight faintness and confusion of ideas antecedent to the attack, which may take place during sleep, and the sufferer is unconscious of the fact till he awakes to his loss, either of speech or motion in one or more limbs; but when there present such apparent symptoms, very similar to those peculiar to apoplexy, as headache, flushed face, swelling about the head and neck, incoherent speech, disconnected ideas, inclination to sleep, and a tingling sensation in a certain limb, or part of the body, then an attack may be regarded as close at hand.

TREATMENT. Bleeding and cupping in the neck is the right treatment for a person of full habit, and where the bowels are costive, they must be moved by purgatives of 5 grains of calomel, followed by a dose of senna mixture,

or croton pills, or pulverized scammony, 12 grains; pulverized gamboge, 12 grains; elaterium, 2 grains; croton oil, 8 drops; extract of stramonium, 3 grains. Mix and make into 12 pills, and administer one every hour until it operates, and give an injection of castor oil, one gill; red pepper, 10 grains; molasses, one gill; table salt, one tea-spoonful, and one pint of warm water.

If the attack be sudden and severe and the symptoms similar to those in apoplexy, such as flow of blood to the head, throbbing of the temporal arteries, full and hard pulse, place the patient in a half delining position, loosening all garments, especially around the neck, and apply cold wet cloths or ice frequently to the head. *See Apoplexy.* In case of faintness and wandering of the intellect, administer a tea-spoonful of sal volatile in a glass of water, and, if required, repeat the dose in about an hour's time. No alcohol must be given. Place the patient in a warm bed, with the head and shoulders well raised, and put the legs and feet in a hot mustard and water bath. Cupping the neck should be followed by a blister, and if necessary a seton be put in. The bowels, after

they have once acted well, should be kept well regulated with rhubarb or castor oil. The diet should be spare, and the patient kept as quiet as possible. Where it is the lower part of the body that is attacked (paraphligia), it is often very difficult to get the bladder to act properly, and when it does, the urine flows involuntarily. Great attention should be paid to this. Counter-irritants should be applied down the spine, such as blisters, moxa, compound of tar, or pitch plasters, and small blisters on the inside of the legs and thighs. In facial palsy, when due to a blow, a few leeches applied behind the ear and at the angle of the jaw, will prove beneficial. Hot fomentations and stimulating liniments should be used when the attack is due to cold, and also in the case where the hands or extremities are affected.

This disease sometimes follows Painters' Colic arising from the absorption of lead, which is generally confined to the wrists. Use galvanism, friction, and shampooing with chalybeate water.

Poison—Ivy.

Any person is liable to get poisoned by dogwood, Ivy, etc., when in the country. While walking in the fields the leaves of the ivy-vine or the dogwood leaves will come in contact with your hands and face and will poison you at once. You will first feel a discomfort and itching. By scratching yourself you will be poisoned all over. To prevent this spreading, you should immediately bathe yourself all over in an ordinary bath-tub, changing the water twice. The itching may be relieved by bathing the parts in a mixture of two tea-spoonfuls of carbolic acid, two table-spoonful of glycerine, one-half pint of water. If there is any swelling of the hands or face, apply a solution of sugar of lead, or still better, a decoction of which-hazel bark.

Poisons.

Accidents from poisons are of such common occurrence that every person should know the proper remedies and not be obliged to wait the arrival of a physician before the corrective is applied.

In treatment, two objects are to be kept in view. First, how to get rid of the poison; second, to stop its action. The first is to remove the poison from the stomach by giving emetics to cause vomiting. The simplest way to provoke vomiting, is to give a table-spoonful of ground mustard or common salt in a tumbler of warm water, a quarter of it at one time, followed by a cup of warm water. Then another quarter, and more warm water. Keep this up until vomiting is secured. Tickling the back of the throat with the finger or a feather will help. Some of the emetics are ipecacuanha, tartar emetic, sulphate of zinc, and sulphate of copper. Sulphate of zinc in twenty grains doses is the best. Vomiting should be promoted until the stomach is entirely empty. The second indication is to use antidotes, such as sweet oil, vinegar and water, beaten up raw eggs, strong hot tea, warm milk, or strong coffee.

If stupor or sleep is impending, take the patient into the open air and walk him up and down. Dash cold water over the head and face, and keep up artificial breathing, if necessary, (see page 63), and do not on any account, until the effects of the poison are gone off, allow

him to go to sleep. If you do, he never will wake again.

Poisons and their Antidotes.

In all cases of poisoning, it must be taken as a general rule that the person should be made to vomit, especially if seen immediately after taking the poison. A tea-spoonful of mustard, or two or three of alum, taken in warm water, will effect this purpose.

Only a few of the principal substances of a poisonous character which enter into the daily economy, with their antidotes are here given.

ACIDS. *Sulphuric* (oil of vitriol), *Nitric* (aquafortis), *Muriatic* (spirits of salt), *Oxalic*, or *Oxalates*. But not Prussic acid.

TREATMENT. Give plenty of calcined magnesia, an ounce to a pint of water, every two or three minutes, in a wine-glass. Whiting, chalk, or a piece of plaster broken off the wall and pounded small, will answer the purpose, if the magnesia be not ready at hand. A table-spoonful of soft soap, or common soap, cut up into small pieces, should be got ready, and given in tea-spoonfuls of water.

Carbolic. Creosote. Administer plenty of white of egg and an emetic. One tea-spoonful of mustard in warm water, followed by a mixture of olive oil and magnesia.

PRUSSIC ACID. (Oil of bitter almonds, laurel water, cyanide of potassium), used by photographers and others.

TREATMENT. Throw cold water over the face, head and back, even when convulsions have occurred. Give sal volatile and water, and apply smelling salts to the nose, but not too strong in either instance.

ARSENIC. Every preparation of arsenic is an irritant poison. Amongst the commonest forms are : *Scheele's green, ague drops, rat poison, etc.*,

TREATMENT. Give plenty of raw milk and eggs, lime water, or flour and water, and then castor oil.

ANTIMONY. (Tartar emetic, Butter of Antimony, Oxide of Antimony.) Poisoning by these, when taken accidentally in large quantities, cause severe vomiting and great prostration.

TREATMENT. If sufficient quantity has not been taken to produce vomiting, induce and facilitate it by copious draughts of warm water

and by tickling the throat. Give strong tea, or a decoction of cinchona bark.

ALKALIES. (*Ammonia*, or *Hartshorn, Potassa Caustic, Soda Caustic, Lye of Wood Ashes, Quicklime.*)

TREATMENT. Two or three table-spoonfuls, of vinegar, or lime juice, in as much again of water sufficient to neutralize the alkali. Then give olive oil or milk. Do not give emetics.

BAD FISH. (Mussels, Lobsters, Crabs, etc.)

TREATMENT. Empty the stomach as quickly as possible with a little mustard and warm water, salt and water, tickling the top of the throat. Then administer a good dose of castor oil with some warm spice; if necessary, put a mustard plaster on the stomach.

BUG POISON. (Corrosive Sublimate.)

This is the ordinary bed bug poison, which is often taken by accident.

TREATMENT. Mix up as quickly as possible the whites of six eggs in a pint of cold water, giving a glassful every three or four minutes, and in the interval plenty of milk, till the stomach can contain no more. Wheat flour mixed with water is a good remedy.

(See below Mercury and its compounds.)

COPPER COMPOUNDS. (Blue Vitriol, Verdigris.)

MERCURY COMPOUNDS. (Corrosive Sublimate, White Precipitate, Red Precipitate, Vermilion).

ZINC COMPOUNDS. (White Vitriol.)

TREATMENT. Give abundance of white of eggs, then warm water with a tea-spoonful of mustard to induce vomiting. After vomiting administer white of egg and milk, or wheat flour and milk as a batter.

IODINE. (Tincture or Solution.)

TREATMENT. Give freely fresh paste of starch or wheat flour mixed with water, then a little mustard and warm water to excite vomiting. White of eggs and milk and mucilaginous drinks are excellent substitutes.

LEAD COMPOUNDS (Sugar of Lead, White Lead, Red Lead, Litharge.)

TREATMENT. Induce vomiting in the usual way with a little mustard and warm water and by tickling the throat. Give an ounce of Epsom salts dissolved in water. If sulphate of zinc be at hand, give from 10 to 30 grains instead of the mustard as an emetic.

LUNAR CAUSTIC. (Nitrate of Silver.)

This has often been accidentally swalloed when used for touching a sore throat.

TREATMENT. Give a large tea-spoonful of salt in a glass of water, repeated every ten minutes; then administer a dose of castor oil, and linseed tea or barley water for a drink.

LAUDANUM. (Opium, Morphine, Soothing Syrups.)

TREATMENT. Empty the stomach as quickly as possible by vomiting. Give finely powdered fresh charcoal (by quickly pounding coal from a wood fire). After the stomach has been well cleared, give very strong coffee or tea; put a mustard plaster around the calf of each leg, and if the patient be cold and sinking, give a good quantity of spirits and water. Keep the patient till the effect has passed off by beating the soles of the feet, dashing cold water on the face and keeping him as much as possible on the move. The inclination to sleep must under no circumstances be indulged in.

CHLOROFORM. (Chloral, Ether.)

TREATMENT. Excite vomiting in the ordinary way, mustard and warm water, etc. Dash cold water over the head, face and body. Induce artificial respiration as in drowning (see page 63). Place a piece of ice in the rectum.

Suspend the patient for a few moments by his legs.

STRYCHNINE. (Nux Vomica, Rat Poison, etc.)

There is lockjaw and considerable twitchings and convulsions; the body being bent backwards.

TREATMENT. Empty the stomach by an emetic, and then give linseed tea or barley water, adding for an adult 30 drops of laudanum, occasionally to relieve the spasms. Two ounces of camphor dissolved in a quart of whiskey, and given freely, is said to be an excellent antidote.

POISONOUS PLANTS and SEEDS.

Children and others often suffer from accidentally eating poisonous fungi, mistaking them for mushrooms, etc. The stomach should at once be cleared by an emetic, warm water with mustard, or salt, or soft soap. If there be no purging, then administer a dose of castor oil. If the patient be in a faint and sinking condition, give stimulants.

IVY-POISONING.

Apply soft soap freely to the affected parts, or bathe them with a weak tincture of belladonna.

PHOSPHOROUS. (Lucifer matches.)

Children often play with and suck these matches composed of this poisonous substance; the effect is similar to the symptoms caused by arsenic.

TREATMENT. Give large doses of warm water with mustard or magnesia, chalk, or even flour mixed with it. Induce vomiting, but give nothing of an oleaginous character.

GENERAL REMARKS.

It must be always remembered that cases of poisoning require prompt treatment.

In many cases of accident and diseases time is not of that essential consequence that it is in the cases of these. The life or death of the sufferer may depend upon the way you employ the few moments in which you have to act.

Sea Sickness.

This sickness is classified under the head of diseases of the general system. I placed it here for the benefit of those who are going to make an ocean voyage for the first time, as I know that most people never or seldom think

to prepare themselves for it. Sea sickness has a number of varieties and is the great terror of persons who for the first time cross the ocean. At there is no vomiting, but a feeling of constant dizziness, confusion of ideas and perhaps a dull headache take its place. Even in such cases there is more or less loss of appetite, and in nearly all there is obstinate constipation. Without doubt the close atmosphere of the vessel plays an important part in the production of the vomiting, since even those who are not much affected may lose control of their stomachs if they venture into the neighborhood of the cook's galley. Intense as the suffering may be, it is rarely that the malady ends fatally.

For some reason consumptive persons appear less subject to sea sickness than most others, and it said that dark complexioned persons suffer more from it than others.

Persons about to proceed to sea should put their stomach and bowels in order by the use of mild aperients a few days before starting. If it can not be entirely prevented, it may be mitigated by lying flat upon the back. To lie on deck in the open air is much better than lying in the close air of the cabin or state-room.

As the vessel descends, draw in the breath, and as it ascends, exhale the breath. (This prevents the movements of the organs which act immediately upon sea sickness.)

Hold fast by the ropes on the side of the ship so as to move with all its motions. Take a dose of some purgative that will empty the bowels. A wine-glassful of brandy or from 10 to 30 drops of laudanum will relieve the sickness very much. For a child it is sometimes sufficient to wet a cloth with laudanum and lay upon the pit of the stomach. Morphine is sometimes even better than laudanum. Creosote, one drop at a dose made into a pill, is excellent. Ten drops of hartshorn in half a tumbler of water is good for some.

But the best known remedy is chloroform taken in doses of from 40 to 60 drops in water by means of a little gum arabic.

The headache and dizziness can sometimes be relieved by bromide of sodium or potassium, in doses of 20 to 30 grains for an adult, taken in water and repeated at intervals of four to six hours.

Snake Bites.

The danger arising from snake bites is owing to the introduction of a poison which so swiftly permeates the whole system, that immediate action is the more imperative as the question of life or death is solved in a few brief moments. Among the chief venomous reptiles may be enumerated the following: the whip-cord, cobra de capello, rattlesnake, viper, and adder. The bites of the two first-named are more fatal and rapid than those of the others.

The teeth of these reptiles lie in the front of the upper jaw and are of a hook-shaped form. The venom is contained in a small sac or duct situated at the base of the fang, which is channelled throughout to allow of the exit of the poison. When the tooth penetrates the tissues, the poisonous sac becomes contracted and the venom is ejected into the wound and immediately caught up by the circulation.

The wounded part quickly swells to an enormous extent, assuming various hues, while the victim experiences a feeling of faintness and depression and quickly passes to a state of delirium and unconsciousness. The bite occasions a sharp and intense pain which extends

up the limb, in the direction of the principal nerves. The treatment in this instance should be similar to that of a wound produced by a rabid dog, that is, the part should be well washed, sucked and cauterized. Let some person—the patient, if able to reach the wound—take up the flesh on either side of the bite between the teeth and suck the place, spitting the saliva out at once. (It must be borne in mind that the patient or other person performing the operation should be free from cuts, etc., on the lips or tongue.) Then, if the position of the wound permit, tie a handkerchief or a piece of string firmly round the limb, above, and as near as possible to the wound, and between it and the heart, to prevent the return of the blood to that organ. In the meanwhile a poker or a nail should be made red hot and well pressed over the whole wound, when, if the burning be properly done, the tissues will become white. Stick caustic, moistened in water, will answer the same purpose as a poker. In every instance the patient should be given as much brandy or whiskey as he can drink, together with a liberal application of coal oil to the wound, which should be bandaged with

flannel or some material that will absorb and freely retain the oil.

If the above treatment be carried out, all will have been done that a practical physician could do in an emergency of this character.

Sprains or Strains.

This term is usually given to injuries occurring about the joints due to a forcible straining or wrenching of the surrounding ligaments, so as more or less to lacerate them, or even sometimes to break a tendon, but without entirely displacing a bone. The injured tissues being of low vitality, a considerable time elapses before they again regain their usual form and functions. In severe cases, it is advisable to obtain proper advice, as the consequences are more lasting than in the case of a broken bone, especially where the injury is to the knee, ankle-joint or wrist, the parts most liable to sprains. To be assured that no bones are broken or displaced, as soon as possible, before the swelling takes place, see if the joint looks natural by comparing it with the other one, and noting if any

bone is loose or out of place, and if so, consult a surgeon.

CAUSES. Sprains result from over-bending of joints, or from their being bent in a direction not intended by nature, as when making a false step, or falling on the hand, the wrist or foot is twisted much, either forward or backward, causing the ligaments and tendons to be unduly stretched or lacerated. The degree of danger in a sprain depends upon how far the use or disuse of the joint can be suspended with much or little discomfort.

The SYMPTOMS are violent pains at the time of the accident with considerable swelling and discoloration of the injured parts from the blood rushing into the cells under the skin. The joints can at first be readily moved, but as the swelling and inflammation increase, all motion becomes painful and the patient altogether loses for a time the use of the injured limb.

TREATMENT. Raise the injured limb to such a position as will relax the muscles connected with the affected part, and let the sprain have *absolute* rest, which is most essential and the best way of treating it.

To such sprains as relate to the knee, ankle,

elbow, wrist, or finger joints, the necessary rest may be secured by the aid of splints, and these to be thoroughly sufficient, should be such as to adapt themselves to the largest extent of surface. The patient should be kept in a recumbent position, and cold applications, which are the best at first, should be constantly applied to the affected parts by dipping linen rags in the following lotion, which should be kept in a cool place. Goulard water, 4 ounces; gin, 4 ounces; camphor mixture, 1 ounce, and mindererus spirit, 1 ounce. Tinture of arnica, or a poultice of arnica flowers are also valuable applications. This course should be persevered in for one or two days, after which, if the pain or swelling do not abate, apply leeches freely to the injured parts and encourage the bleeding by using a sponge with warm water constantly to the bites. Hot fomentations should afterwards be applied with flannel wrung out of a decoction of chamomile flowers and poppy heads and see that the bowels are kept properly regulated. When the pain lasts for more than two days, it is best to call in a physician, but always when the pain is very severe and the swelling marked. As soon as the parts have

recovered their normal healthy condition, care must be taken not to encourage irritation and inflammation in the limb by using it too soon.

Stings of Insects.

Stings of bees, spiders, wasps, or any insect may become painful and dangerous in case of numerous bites. If the stings of insects have remained in the flesh, they must be extracted the same as a splinter with a pair of forceps or pincers. Then wash the wounds clean and rub the parts with olive oil to prevent smarting. Then apply to the wounds with a rag or sponge salt and vinegar, or a strong solution of ammonia, and afterward cover with cloths moistened with the same substance to remove any swelling that remains.

Suffocation.

Under this convenient and general designation may be included all those cases, where from special accidental causes the breathing is either impeded or temporarily suspended. The general appearance of the sufferer, the fixed and staring eye, the pallid features, and general look of terror, are characteristic of, and sufficiently evidence to his sufferings.

Only such cases of common incidents and which require immediate attention, are here noticed.

CHOKING. This accident is chiefly due to carelessness. Pieces of meat, bone, especially fish-bones, get into the gullet, or are stopped on their passage to the stomach, producing, according to the size of the substance either suffocation (choking) or a troublesome tickling cough.

TREATMENT. Slap the back smartly with the open hand (but not too heavily) between the shoulders. The sudden compression of air on the chest will generally enable the sufferer to cough out the obstacle; or make him swallow a few crumbs of bread, and then take a draught of water, which will distent the gullet

above the obstruction and cause both it and the water to pass with a jerk into the stomach. An emetic of mustard and warm water is often effective when other means have failed.

DROWNING. Suffocation from this cause is fully treated of under that head (see page 62).

NOXIOUS VAPORS. Persons are often overcome by these, either through ignorance of their existence, or imprudence in not taking proper precautions to ascertain it.

FOUL AIR is commonly to be met with in cellars, wells, tanks, and in similar places, and also in mines, where even science has not been able to remove its dangers.

The presence of this noxious gas (carbonic acid) can be readily discovered by the simple expedient of using an open candle or lamp: if the poisonous air be present, the flame which like human beings, requires oxygen for its support, will flicker and die out; in such case no living creature could enter the place without incurring great danger.

CHARCOAL and ILLUMINATING GAS. Charcoal fumes are often purposely inhaled with suicidal intentions, or the ordinary gas is unsuspectedly breathed, especially during sleep, ow-

ing to some slight escape, not immediately noticeable, or from carelessness or ignorance in extinguishing it. In either case a person soon looses consciousness and becomes suffocated.

The symptoms of suffocation by gases are analogous to those caused by drowning, and the treatment is alike in both. Place the person in the open air, throw cold water over the head, face and upper part of the body frequently, applying warmth by means of hot plates to the hands, feet and stomach, and friction to the spine, and inflate the lungs if necessary, as directed in the article on DROWNING.

SMOKE from a large fire may often be temporarily be endured and suffocation prevented for a time by throwing a wetted towel or handkerchief over the head, or by holding a moist cloth in the mouth.

Sunstroke.

As implied by the name, this arises chiefly from undue and prolonged exposure to the heat of the sun, but not necessarily from that alone, as similar effects are produced by exposure to any excessive heat when a person is greatly

fatigued and the vital forces are in a state of exhaustion. Sunstroke is not confined to tropical regions, but is of frequent occurrence in northern cities and wherever individuals are exposed to the cause which occasion it.

Those unaccustomed to a high temperature, persons of full habit addicted to free living, and hard workers are more susceptible to sunstroke than those reared in tropical climates; continuous confinement in heated rooms, such as laundries and bake-houses, may produce sunstroke, or rather symptoms identically the same. These symptoms are premonitory, or immediate. In the former, headache, with a burning sensation about the head, together with restlessness and want of sleep at night, are the principal characteristics, the skin becoming hot and dry, the face flushed and the eyes congested. Work continued under the hot sun or in a heated room by a person when laboring under such symptoms, will suddenly cause the sufferer to be seized with vertigo, intense pains in the head, and dimness of sight. The limbs fail to support him, and he falls to the ground in a state of insensibility.

The temperature of the body, as ascertained

by a thermometer, varies from 100 degrees to 107 degrees, and in some instances rises as high as 109 degrees. The *immediate* symptoms are due to exhaustion or syncope, and the stricken person is more likely to die suddenly without any special premonitory symptoms being manifest. In this case the pulse is generally rapid and irregular and the breathing gasping. The pupils may become dilated, but the skin is not extremely hot.

TREATMENT. The patient should at once be removed into the shade or into a cool room, near an open window, and placed in a recumbent position with the head slightly raised. The clothes are then stripped off, and a stream of water as cold as possible poured over him. This should be done from a height of four to five feet to give the sufferer the benefit of the shock. Cold towels dipped in iced water must be *constantly and continuously* applied to the head and body, which should be also well rubbed with ice. This treatment must be *at once* resorted to, as it tends to check the bodily temperature from rising, and any neglect to secure this all important end will speedily cause the death of the patient. A doctor should be sent

for while the sufferer is undergoing the preliminary treatment above described, which must not be abated until his arrival.

Things in the Eye.

Sand, broken eye-lashes, cinders, etc., often lodge under the eye-lids, usually the lower lid. When a person complains of some substance in the eye, the inside of the lower eye-lid and lower portion of the ball should first be examined. Pull the lid down and at the same time direct the person to look up and from one side to the other. If nothing be discerned there, the patient is then to be directed to look downward. This will expose to view the upper part of the globe. If the object is under the lower lid, pull the lid down and remove by wiping the little nuisance into the corner of the eye with a camel's hair brush, or a soft rag, or the end of the finger covered with a silk handkerchief. If the object is under the upper lid, lay a pencil or crochet needle or some round smooth thing, as a bodkin, which will turn the lid wrong side out, and remove in the same way.

Sometimes a small chipping of iron gets fixed on the ball of the eye, and engineers are often very expert in removing them with the point of a pen-knife. But if you can get a good magnet, it will draw away the chip of iron without any risk of injuring the eye.

Broken eye-lashes which have become fixed in the eye, should be extracted with forceps. Persons employed or standing about buildings where quicklime is used, may accidentally get some into the eye. It is instantly removed by bathing the eye well with vinegar and water. One part of vinegar to three parts of water. The vinegar will neutralize the lime and will rob it of its burning properties. The lime will soon burn away the sight, if the proper means are not promptly used.

Tooth-ache, Pains in the Face and Jaw, Ear-ache.

TOOTH-ACHE is due to the exposure of the nerve in the internal cavity of the tooth, either from fracture or decay of a part of the tooth. The nerve is extremely sensitive, and by coming into contact with air and acrimonious substances, inflammation is excited and tooth-ache is the

consequence. Pain in a wholesome tooth may be caused by sympathy with an unsound one, a disordered stomach, or whatever excites painful sympathetic action in the nerves of the face. Relief may be obtained by dropping a little oil of cloves or creosote on a bit of cotton wool and inserting it in the cavity, but when the tooth is too far gone for stopping, extraction is the only remedy.

PAINS IN THE FACE AND JAW, when not caused by rotten teeth, may be allayed by holding a little brandy, or other spirit, or tincture of cayenne, or hot water in the mouth, and *externally* applying laudanum. The following is an excellent poultice in these cases. Take two large table-spoonfuls of flour, 2 tea-spoonfuls of black pepper, and mix with a little brandy or other spirit; put the poultice on a handkerchief and tie it round the face over the part affected. The poultice which should be of medium consistency, can be kept on for a considerable period without injury to the skin, and will afford great relief.

EAR-ACHE may be caused by an abscess in the passages, or it may be entirely due to neuralgia. It is common with children when

teething, and adults at the time that the wisdom teeth appear. Exposure to cold or draughts will often produce it. There are several means of relieving the pain, which is not generally accompanied with any great constitutional derangement. A little laudanum dropped into the ear and plugged with cotton wool or lint, small bags of hot salt, or the heart of a roasted onion on the affected member, are all soothing remedies. Should these prove not effectual, apply a fomentation of hot chamomiles and poppy seeds, and a warm poultice afterwards. When an abscess is the cause, and there is much swelling and pain, hot fomentations and poultices should be applied and the passage syringed with warm water after the abscess has discharged with a solution of eight grains of sulphate of zinc to an ounce of plain or rose-water. The bowels should be kept well attended to.

Wounds.

The loss of blood consequent upon a wound is, in most cases, the principal and immediate danger, and the first step in the treatment should be directed to checking the hemorrhage. It is

the position rather than the extent which constitutes the chief danger in wounds, of which there are several kinds requiring treatment suitable to each. The following are the several classes into which wounds are divided, viz.:

1. INCISED, or clean cut, usually made with sharp instruments or glass without any laceration or tearing about them.

2. LACERATED, when the flesh is torn by machinery, hooks, and other blunt instruments.

3. CONTUSED, when there are divisions of skin and flesh with more or less bruising of the parts, attended by a greater or less amount of loss of substance. They are generally caused by falls or blows from blunt instruments. A *blood blister* is the simplest form of a contusion and is due to an injury which breaks a blood vessel under the skin, without breaking the skin itself.

4. PUNCTURED WOUNDS or STABS form another class. These are produced by the forbible entry of pointed weapons, as bayonets, lances, daggers, scissors, etc. The danger consists in their penetration into and injury of the blood vessels, nerves, bowels, and other organs.

5. POISONED WOUNDS are those due to the introduction of some poison into the incised or

punctured part. Stings and bites of venomous reptiles and insects belong to this class, and also wounds inflicted by poisonous arrows.

Having briefly described the various kinds of wounds, we will proceed to the treatment suitable to each class.

1. INCISED WOUNDS. TREATMENT. Here the flesh is divided by some sharp cutting instrument, the cut parts naturally separating, giving the wound a gaping appearance. All that is to be done is to bring the edges of the wound together and keep them in that position until they join together again. This can be easily managed by means of sticking plaster or collodion, after the wound has been washed with cold water and the skin dried. There need be no hurry to stop the bleeding in ordinary cases, unless it be very profuse. When the blood has a dark bluish appearance, it is from a lacerated or severed *vein*, and as its flow is from the extremities toward the heart, this flow can be checked by pressure on the flesh over the vein, *below* the wound. If, however, the blood is of a bright red color, it comes from an artery and must be at once stopped by applying a bandage of some strong material, as a handkerchief,

tightly round the limb, and *above* the wound. To perfect the pressure on an artery, insert a stick under the bandage and twist it round several times. This will close the channel and stop the flow of blood until professional aid is obtained. It should be borne in mind that when the blood ceases to come out in *spurts*, the artery is under control.

2. LACERATED WOUNDS. In these, large pieces of flesh are often torn away and the open wound is filled with sand or other extraneous substances, according to the nature of the accident, which must be removed by washing freely with a soft sponge. Wounds caused by laceration are very liable to active inflammation from the great injury done to the parts and from their not bleeding much. If the wounds be considerable, the sufferer must have absolute rest, and the injured parts should be covered with cooling lotions. An attempt should be made to press the parts as nearly as possible into their original position, so far as the wound will allow, and to keep them so by using strips of plaster. The bandages should lie loosely over the injured parts, but firmly applied to the

sound. The bowels should be opened by an ordinary black draught.

Should any part of the instrument or other cause of the wound remain deeply in a dangerous region, do not use excessive force in efforts to remove it, but await the arrival of a surgeon. In cases where there is considerable inflammation, take off the adhesive plasters and put on leeches, encouraging the bleeding by the application of hot water and a sponge. Hot fomentations and poultices should take the place of cold lotion; and if there be much fever, restlessness or delirium, then saline purgatives, opium, and a very low diet will be required.

3. CONTUSED WOUNDS require the treatment as those by laceration. That is, cold applications at the first, and if inflammation should afterward set in, then leeches and hot fomentations. These wounds rarely heal without suppuration and sloughing, or mortification of the parts, according to the extent of the injury, but they do not bleed much. Poultices of bread and water, or linseed meal should be applied three or four times a day to encourage these processes, and when the abscess breaks, or the slough is thrown off they should be treated as

ordinary ulcers, with basilicon, or other stimulating ointment, for the purpose of effecting a healthy cure.

4. PUNCTURED WOUNDS or STABS, produced by swords, daggers, etc., are more dangerous and difficult of cure than any of those previously described. They cause great swelling and inflammation of the absorbents (vessels running from the wound to the neighboring glands, marked by lines following the course of those vessels), with abscesses of the glands, and other portions of the body, symptomic fever and erysipelas. When the tendons and sinews have been punctured, lockjaw and violent convulsions are generally the result.

In treating wounds of this kind, the puncture should, in the first case, be laid open and superficial dressings of cold lotions or cold water only be used, and a loose bandage. If the pain and swelling increase, leeches may be applied to the parts about the wound and hot fomentations and poultices should replace the cold lotions, putting a small linen rag, spread with spermaceti cerate, over the wound. The limb should rest on an inclined plane to assist the gravitation of the blood towards the body. Sa-

line purgatives and opiates are often required when great pain and inflammation are present. All stimulating drinks should be stopped, the bowels kept freely open, and perfect rest enforced.

5. POISONED WOUNDS. *Bites of Venomous Snakes and Reptiles.* When bitten by a snake or other venomous reptile, at once tie a piece of string tightly round the part *above* the wound to prevent the return of the blood to the heart. Wash the bite well, and either cut out a piece from the bitten part, or apply a dry cup; if the latter is not ready at hand, take a large quill or small tube and placing one end over the wound suck away at the other. This will create a vacuum and do as a cupping glass. Suction with the mouth, if the spot can be reached, will answer equally well. After doing one of these things, rub the wound well with some lunar caustic, or else take a poker or a steel, and after making it red hot, press it well into the wound. In rattlesnake bites, whiskey or other alcoholic stimulants, taken in large quantities, and immediately after the injury, is the only known remedy.

For Bites of Mosquitoes, Spiders, and Stings

of Bees and Wasps, the best known applications are a solution of common salt, or sugar of lead, 1 scruple; rose-water, 4 ounces. Mix together and apply externally. If the above are not at hand, cover the bites with wet earth. Tincture of arnica, one-half ounce, and cold water, four ounces, is also an excellent remedy.

Accidents.—How to avoid them.

It is beyond the power of man to secure absolute immunity from accidents, even when their possibilities have been reduced to a minimum, so far as human foresight is capable of effecting it.

Disregard and neglect of the very precautions enjoined to ensure safety, and the frequent wilful violation of both natural and moral law, are in themselves the too fruitful cases of many disasters which might otherwise have been prevented. Our path through life is daily beset with unknown and unforeseen perils, and familiarity with them begets contempt, and a disregard of what pain and suffering our selfishness and want of care may entail not only to ourselves, but others.

The various inventions that tend to promote

man's wealth or pleasure and comfort, impose responsibilities which, if not rightly understood and carried out may bring disaster on many innocent people. In our home-life, in our journeys whether of pleasure or business, in the workshop or office, in the outdoor enjoyments in which we participate, our freedom from accident depends upon the skill and care of others equally as on our own, and this mutual dependence we must share through our walk in life.

It is impossible to give any rule for the avoidance of accidents beyond the common sense one of a proper regard to our own safety and that of others dependent on the righteous discharge of our duty. By care and presence of mind many accidents may be altogether prevented and the disastrous results of others lessened by knowing what to do and how to do it under certain given cirumstances.

The object of this book is to provide in a clear and comprehensive form such rudimentary knowledge of how accidents may be avoided and how we should act in cases of emergency, before skilled advice can be obtained, as can be readily possessed by any intelligent person.

Presence of Mind. Take Things Quietly.

Knowledge of what should and ought to be done in cases of accident or emergency, is without doubt of primary importance to all of us, for it is impossible to say when its need may not be felt; but to have the *power* and will to put this knowledge to practical and effective use, is a very different matter and requires qualifications which are either non-existent or not readily found in persons called upon suddenly to exercise them.

The truth of this statement can be verified any day in our very streets. An accident occurs, a crowd naturally collects round the scene, doing on the simple impulse of the moment what at other times they would decry as culpable curiosity, but the observant onlooker will soon notice that one man, by his mere force of character and presence of mind, at once seizes his opportunity and knowing how to act—acts. It is not given to every one to possess this gift, but with some it is inherent, a part of their very nature, and a sense of danger and the necessity for prompt, decisive and undemonstrative action, seems at once to rouse the

latent energy to life. It is this very power of being equal to the occasion which constitutes *presence* of mind, a quality, however, capable of cultivation and development. A great difficulty is often felt when a person is, for the first time, suddenly brought face to face with a case that demands the exercise of self-possession and the ability of keeping calm and quiet when these are absolutely essential.

There is an instinctive feeling of horror and shrinking from the sight of blood, or any great bodily suffering, which is not unnatural, but the difficulties are only increased and the dangers intensified by senseless screaming and the hindering fussiness so frequently displayed, when silence and prompt recourse to the necessary treatment are imperatively required.

It by no means follows that a person is by nature hard-hearted and unsympathetic, when bravely and determinedly facing a difficulty which requires personal feeling to be put aside, indeed it is very far from being the case, for powers of self-control and self-sacrifice are called for, which are often painful and hard to exercise.

The wards of our hospitals are walked and

tended by tender-hearted men and women whose unselfish devotion testifies to their sympathy with, and their desire to alleviate the sufferings of the patients.

Pain and suffering affect persons in different ways, borne by one in silent endurance, whilst another will shout and writhe with the agony. The man whose calling necessitates an active life in the open air, feels more acutely the confinement to a bed, than one whose life has been devoted to study or other sedentary occupation, and a restlessness is exhibited by the former which the latter seldom shows. This is a point worth bearing in mind by those who attend on patients. The sufferers, too, can do much to hasten their own recovery and to lessen the anxiety and trouble of those who administer to their wants and comforts by a cheerful acquiescence in all that is required of them and a manly determination not to give way, but bravely to bear their burden of suffering. As presence of mind and calm self-control are necessary in the nurser, so is a ready compliance to all that is asked of him requisite in the patient.

Concluding Remarks.

If this book is to be used by the present and rising generation, as I humbly hope and trust that it will, it ought not to be listlessly read merely as a novel or as any other piece of fiction, but it must be thoroughly and carefully studied until its contents in all its bearing be completely mastered and understood.

THE END.

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